



JTC IMPORT/EXPORT P/L

## Lucky Super Soft Hair Color For Men Black

### JTC Import Export Pty Ltd

Chemwatch: 7956-52

Version No: 3.1

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

Chemwatch Hazard Alert Code: 3

Initial Date: 16/05/2025

Revision Date: 19/06/2025

Print Date: 20/06/2025

S.GHS.AUS.EN

#### SECTION 1 Identification of the substance / mixture and of the company / undertaking

##### Product Identifier

|                               |                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Product name                  | Lucky Super Soft Hair Color For Men Black                                                                       |
| Chemical Name                 | Not Applicable                                                                                                  |
| Synonyms                      | Not Available                                                                                                   |
| Proper shipping name          | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains alcohols C16-18 ethoxylated and alcohols C14-C18) |
| Chemical formula              | Not Applicable                                                                                                  |
| Other means of identification | Not Available                                                                                                   |

##### Relevant identified uses of the substance or mixture and uses advised against

|                          |                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Relevant identified uses | Cosmetic use.<br>Use according to manufacturer's directions.<br>SDS are intended for use in the workplace ONLY. For domestic-use products, refer to consumer labels. |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

##### Details of the manufacturer or importer of the safety data sheet

|                         |                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------|
| Registered company name | JTC Import Export Pty Ltd                                                           |
| Address                 | 98-126 South Park Drive Dandenong South VIC 3175 Australia                          |
| Telephone               | +61 3 9532 5100                                                                     |
| Fax                     | +61 3 9532 6102                                                                     |
| Website                 | <a href="https://www.jtcimportexport.com.au">https://www.jtcimportexport.com.au</a> |
| Email                   | <a href="mailto:sales@jtcimportexport.com.au">sales@jtcimportexport.com.au</a>      |

##### Emergency telephone number

|                                     |                                                                    |                                     |
|-------------------------------------|--------------------------------------------------------------------|-------------------------------------|
| Association / Organisation          | JTC Import Export Pty Ltd                                          | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone number(s)       | +61 3 9532 5100 (Mon-Thurs 8.30am to 5.30pm; Friday 8.30am to 3pm) | +61 1800 951 288 (ID#: 7956-52)     |
| Other emergency telephone number(s) | Not Available                                                      | +61 3 9573 3188                     |

#### SECTION 2 Hazards identification

##### Classification of the substance or mixture

|                               |                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poisons Schedule              | Not Applicable                                                                                                                                                                                                                                                                                                           |
| Classification <sup>[1]</sup> | Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 1, Germ Cell Mutagenicity Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2 |
| Legend:                       | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                                                                                                                                                                                      |

##### Label elements

|                     |        |
|---------------------|--------|
| Hazard pictogram(s) |        |
| Signal word         | Danger |

##### Hazard statement(s)

|        |                                                  |
|--------|--------------------------------------------------|
| H302   | Harmful if swallowed.                            |
| H315   | Causes skin irritation.                          |
| H317   | May cause an allergic skin reaction.             |
| H318   | Causes serious eye damage.                       |
| H341   | Suspected of causing genetic defects.            |
| H411   | Toxic to aquatic life with long lasting effects. |
| AUH031 | Contact with acid liberates toxic gas.           |

Precautionary statement(s) Prevention

|      |                                                                                  |
|------|----------------------------------------------------------------------------------|
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P261 | Avoid breathing mist/vapours/spray.                                              |
| P264 | Wash all exposed external body areas thoroughly after handling.                  |
| P270 | Do not eat, drink or smoke when using this product.                              |
| P273 | Avoid release to the environment.                                                |
| P202 | Do not handle until all safety precautions have been read and understood.        |
| P272 | Contaminated work clothing should not be allowed out of the workplace.           |

Precautionary statement(s) Response

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313      | IF exposed or concerned: Get medical advice/ attention.                                                                          |
| P310           | Immediately call a POISON CENTER/doctor/physician/first aider.                                                                   |
| P302+P352      | IF ON SKIN: Wash with plenty of water.                                                                                           |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.                                                                 |
| P362+P364      | Take off contaminated clothing and wash it before reuse.                                                                         |
| P391           | Collect spillage.                                                                                                                |
| P301+P312      | IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.                                              |
| P330           | Rinse mouth.                                                                                                                     |

Precautionary statement(s) Storage

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

Precautionary statement(s) Disposal

|      |                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|----------------------------------------------------------------------------------------------------------------------------------|

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

| CAS No     | %[weight]                                                                                                                                                                                    | Name                                                 |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 67762-30-5 | 10-15                                                                                                                                                                                        | <u>alcohols C14-C18</u>                              |
| 68439-49-6 | 2.5-5                                                                                                                                                                                        | <u>alcohols C16-18 ethoxylated</u>                   |
| 141-43-5   | 2-2.5                                                                                                                                                                                        | <u>ethanolamine</u>                                  |
| 112-03-8   | 1-2                                                                                                                                                                                          | <u>octadecyltrimethylammonium chloride</u>           |
| 106-50-3   | 1-2                                                                                                                                                                                          | <u>p-phenylenediamine</u>                            |
| 615-50-9   | 1-2                                                                                                                                                                                          | <u>2,5-diaminotoluene sulfate</u>                    |
| 31566-31-1 | 1-2                                                                                                                                                                                          | <u>glyceryl monostearate</u>                         |
| 57-55-6    | 0.1-1                                                                                                                                                                                        | <u>propylene glycol</u>                              |
| 108-46-3   | 0.1-1                                                                                                                                                                                        | <u>resorcinol</u>                                    |
| 64-17-5    | 0.1-1                                                                                                                                                                                        | <u>ethanol</u>                                       |
| 7757-83-7  | 0.1-1                                                                                                                                                                                        | <u>sodium sulfite</u>                                |
| 591-27-5   | 0.1-1                                                                                                                                                                                        | <u>m-aminophenol</u>                                 |
| 139-33-3   | 0.1-0.5                                                                                                                                                                                      | <u>EDTA disodium salt</u>                            |
| 1336-21-6  | 0.1-0.5                                                                                                                                                                                      | <u>ammonia</u>                                       |
| 6381-77-7  | 0.1-0.5                                                                                                                                                                                      | <u>sodium erythorbate</u>                            |
| 54381-08-7 | 0.1-0.5                                                                                                                                                                                      | <u>HC Orange no. 1</u>                               |
| 66422-95-5 | 0.1-0.5                                                                                                                                                                                      | <u>2-(2,4-diaminophenoxy)ethanol dihydrochloride</u> |
| 124-28-7   | 0.01-0.1                                                                                                                                                                                     | <u>N,N-dioctadecylmethylamine</u>                    |
| 110-98-5   | 0.001-0.01                                                                                                                                                                                   | <u>1,1'-oxydi-2-propanol</u>                         |
| Legend:    | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available |                                                      |

SECTION 4 First aid measures

Description of first aid measures

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"><li>▶ Immediately hold eyelids apart and flush the eye continuously with running water.</li><li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li><li>▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li><li>▶ Transport to hospital or doctor without delay.</li><li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"><li>▶ Immediately remove all contaminated clothing, including footwear.</li><li>▶ Flush skin and hair with running water (and soap if available).</li><li>▶ Seek medical attention in event of irritation.</li></ul> <p>For thermal burns:</p> <ul style="list-style-type: none"><li>▶ Decontaminate area around burn.</li><li>▶ Consider the use of cold packs and topical antibiotics.</li></ul> <p>For first-degree burns (affecting top layer of skin)</p> <ul style="list-style-type: none"><li>▶ Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides.</li><li>▶ Use compresses if running water is not available.</li><li>▶ Cover with sterile non-adhesive bandage or clean cloth.</li><li>▶ Do NOT apply butter or ointments; this may cause infection.</li><li>▶ Give over-the counter pain relievers if pain increases or swelling, redness, fever occur.</li></ul> <p>For second-degree burns (affecting top two layers of skin)</p> <ul style="list-style-type: none"><li>▶ Cool the burn by immerse in cold running water for 10-15 minutes.</li><li>▶ Use compresses if running water is not available.</li><li>▶ Do NOT apply ice as this may lower body temperature and cause further damage.</li><li>▶ Do NOT break blisters or apply butter or ointments; this may cause infection.</li><li>▶ Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape.</li></ul> <p>To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):</p> <ul style="list-style-type: none"><li>▶ Lay the person flat.</li><li>▶ Elevate feet about 12 inches.</li><li>▶ Elevate burn area above heart level, if possible.</li><li>▶ Cover the person with coat or blanket.</li><li>▶ Seek medical assistance.</li></ul> <p>For third-degree burns</p> <p>Seek immediate medical or emergency assistance.</p> <p>In the mean time:</p> <ul style="list-style-type: none"><li>▶ Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound.</li><li>▶ Separate burned toes and fingers with dry, sterile dressings.</li><li>▶ Do not soak burn in water or apply ointments or butter; this may cause infection.</li><li>▶ To prevent shock see above.</li><li>▶ For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway.</li><li>▶ Have a person with a facial burn sit up.</li><li>▶ Check pulse and breathing to monitor for shock until emergency help arrives.</li></ul> |
| Inhalation   | <ul style="list-style-type: none"><li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li><li>▶ Other measures are usually unnecessary.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ingestion    | <ul style="list-style-type: none"><li>▶ If swallowed do <b>NOT</b> induce vomiting.</li><li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li><li>▶ Observe the patient carefully.</li><li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li><li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li><li>▶ Seek medical advice.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Indication of any immediate medical attention and special treatment needed

The material may induce methaemoglobinaemia following exposure.

- ▶ Initial attention should be directed at oxygen delivery and assisted ventilation if necessary. Hyperbaric oxygen has not demonstrated substantial benefits.
- ▶ Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
- ▶ Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis, alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 50 minutes; repeat, using the same dose, if symptoms of hypoxia fail to subside within 1 hour.
- ▶ Thorough cleansing of the entire contaminated area of the body, including the scalp and nails, is of utmost importance.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant                | Index               | Sampling Time          | Comment   |
|----------------------------|---------------------|------------------------|-----------|
| 1. Methaemoglobin in blood | 1.5% of haemoglobin | During or end of shift | B, NS, SQ |

B: Background levels occur in specimens collected from subjects **NOT** exposed  
NS: Non-specific determinant; also observed after exposure to other materials  
SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

for irritant gas exposures:

- ▶ the presence of the agent when it is inhaled is evanescent (of short duration) and therefore, cannot be washed away or otherwise removed
- ▶ arterial blood gases are of primary importance to aid in determination of the extent of damage. Never discharge a patient significantly exposed to an irritant gas without obtaining an arterial blood sample.
- ▶ supportive measures include suctioning (intubation may be required), volume cycle ventilator support (positive and expiratory pressure (PEEP), steroids and antibiotics, after a culture is taken
- ▶ If the eyes are involved, an ophthalmologic consultation is recommended

Occupational Medicine: Third Edition; Zenz, Dickerson, Horvath 1994 Pub: Mosby

For acute or short term repeated exposures to ammonia and its solutions:

- ▶ Mild to moderate inhalation exposures produce headache, cough, bronchospasm, nausea, vomiting, pharyngeal and retrosternal pain and conjunctivitis. Severe inhalation produces laryngospasm, signs of upper airway obstruction (stridor, hoarseness, difficulty in speaking) and, in excessively, high doses, pulmonary oedema.
- ▶ Warm humidified air may soothe bronchial irritation.
- ▶ Test all patients with conjunctival irritation for corneal abrasion (fluorescein stain, slit lamp exam)
- ▶ Dyspneic patients should receive a chest X-ray and arterial blood gases to detect pulmonary oedema.

SECTION 5 Firefighting measures

Extinguishing media

- ▶ Foam.
- ▶ Dry chemical powder.

## Lucky Super Soft Hair Color For Men Black

- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

|                             |                                                                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

### Advice for firefighters

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul> |
| <b>Fire/Explosion Hazard</b> | Combustible. Will burn if ignited.<br>Combustion products include:<br>carbon monoxide (CO)<br>carbon dioxide (CO <sub>2</sub> )<br>nitrogen oxides (NO <sub>x</sub> )<br>sulfur oxides (SO <sub>x</sub> )<br>other pyrolysis products typical of burning organic material.                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>HAZCHEM</b>               | •3Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Minor Spills</b> | Environmental hazard - contain spillage. <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid contact with skin and eyes.</li> <li>▶ Wear impervious gloves and safety goggles.</li> <li>▶ Trowel up/scrape up.</li> <li>▶ Place spilled material in clean, dry, sealed container.</li> <li>▶ Flush spill area with water.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Major Spills</b> | <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by all means available, spillage from entering drains or water courses.</li> <li>▶ Consider evacuation (or protect in place).</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse / absorb vapour.</li> <li>▶ Contain or absorb spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> Environmental hazard - contain spillage. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

### Precautions for safe handling

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ <b>DO NOT allow material to contact humans, exposed food or food utensils.</b></li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul> |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Store in a cool, dry, well-ventilated area.</li> <li>▶ Store away from incompatible materials and foodstuff containers.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Continued...

► Observe manufacturer’s storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                                                                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <div><div>► Glass container is suitable for laboratory quantities</div><div>► Metal can or drum</div><div>► Packaging as recommended by manufacturer.</div><div>► Check all containers are clearly labelled and free from leaks.</div></div> |
| Storage incompatibility | <div><div>► Avoid reaction with oxidising agents</div></div>                                                                                                                                                                                 |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source                       | Ingredient            | Material name                                   | TWA                   | STEL              | Peak          | Notes                                                                                    |
|------------------------------|-----------------------|-------------------------------------------------|-----------------------|-------------------|---------------|------------------------------------------------------------------------------------------|
| Australia Exposure Standards | ethanolamine          | Ethanolamine                                    | 3 ppm / 7.5 mg/m3     | 15 mg/m3 / 6 ppm  | Not Available | Not Available                                                                            |
| Australia Exposure Standards | p-phenylenediamine    | p-Phenylenediamine                              | 0.1 mg/m3             | Not Available     | Not Available | Not Available                                                                            |
| Australia Exposure Standards | glyceryl monostearate | Stearates                                       | 10 mg/m3              | Not Available     | Not Available | (a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica. |
| Australia Exposure Standards | propylene glycol      | Propane-1,2-diol: particulates only             | 10 mg/m3              | Not Available     | Not Available | Not Available                                                                            |
| Australia Exposure Standards | propylene glycol      | Propane-1,2-diol total: (vapour & particulates) | 150 ppm / 474 mg/m3   | Not Available     | Not Available | Not Available                                                                            |
| Australia Exposure Standards | resorcinol            | Resorcinol                                      | 10 ppm / 45 mg/m3     | 90 mg/m3 / 20 ppm | Not Available | Not Available                                                                            |
| Australia Exposure Standards | ethanol               | Ethyl alcohol                                   | 1000 ppm / 1880 mg/m3 | Not Available     | Not Available | Not Available                                                                            |

| Ingredient                                    | Original IDLH | Revised IDLH  |
|-----------------------------------------------|---------------|---------------|
| alcohols C14-C18                              | Not Available | Not Available |
| alcohols C16-18 ethoxylated                   | Not Available | Not Available |
| ethanolamine                                  | 30 ppm        | Not Available |
| octadecyltrimethylammonium chloride           | Not Available | Not Available |
| p-phenylenediamine                            | 25 mg/m3      | Not Available |
| 2,5-diaminotoluene sulfate                    | Not Available | Not Available |
| glyceryl monostearate                         | Not Available | Not Available |
| propylene glycol                              | Not Available | Not Available |
| resorcinol                                    | Not Available | Not Available |
| ethanol                                       | Not Available | Not Available |
| sodium sulfite                                | Not Available | Not Available |
| m-aminophenol                                 | Not Available | Not Available |
| EDTA disodium salt                            | Not Available | Not Available |
| ammonia                                       | Not Available | Not Available |
| sodium erythorbate                            | Not Available | Not Available |
| HC Orange no. 1                               | Not Available | Not Available |
| 2-(2,4-diaminophenoxy)ethanol dihydrochloride | Not Available | Not Available |
| N,N-diocetadecylmethylamine                   | Not Available | Not Available |
| 1,1'-oxydi-2-propanol                         | Not Available | Not Available |

Exposure controls

|                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls                                      | CARE: Explosive vapour air mixtures may be present on opening vessels which have contained liquid ammonia. Fatalities have occurred                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Individual protection measures, such as personal protective equipment | <div><div></div><div></div><div></div><div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Eye and face protection                                               | <div><div>► Safety glasses with side shields.</div><div>► Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</div><div>► Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].</div></div> |

|                       |                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin protection       | See Hand protection below                                                                                                                                                                                                                                                                                                                                       |
| Hands/feet protection | <b>NOTE:</b> <ul style="list-style-type: none"><li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li><li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li></ul> |
| Body protection       | See Other protection below                                                                                                                                                                                                                                                                                                                                      |
| Other protection      | <ul style="list-style-type: none"><li>▶ Overalls.</li><li>▶ P.V.C apron.</li><li>▶ Barrier cream.</li><li>▶ Skin cleansing cream.</li><li>▶ Eye wash unit.</li></ul>                                                                                                                                                                                            |

Recommended material(s)

**GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the: **"Forsberg Clothing Performance Index"**.  
The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:  
Lucky Super Soft Hair Color For Men Black

| Material         | CPI |
|------------------|-----|
| BUTYL            | C   |
| BUTYL/NEOPRENE   | C   |
| HYPALON          | C   |
| NATURAL RUBBER   | C   |
| NATURAL+NEOPRENE | C   |
| NEOPRENE         | C   |
| NEOPRENE/NATURAL | C   |
| NITRILE          | C   |
| NITRILE+PVC      | C   |
| PE/EVAL/PE       | C   |
| PVA              | C   |
| PVC              | C   |
| VITON            | C   |

\* CPI - Chemwatch Performance Index  
A: Best Selection  
B: Satisfactory; may degrade after 4 hours continuous immersion  
C: Poor to Dangerous Choice for other than short term immersion  
**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -  
\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.  
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator   |
|------------------------------------|----------------------|----------------------|--------------------------|
| up to 10 x ES                      | AK-AUS P2            | -                    | AK-PAPR-AUS / Class 1 P2 |
| up to 50 x ES                      | -                    | AK-AUS / Class 1 P2  | -                        |
| up to 100 x ES                     | -                    | AK-2 P2              | AK-PAPR-2 P2 ^           |

^ - Full-face  
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

|                                              |                 |                                         |                |
|----------------------------------------------|-----------------|-----------------------------------------|----------------|
| Appearance                                   | Paste.          |                                         |                |
| Physical state                               | Non Slump Paste | Relative density (Water = 1)            | Not Available  |
| Odour                                        | Not Available   | Partition coefficient n-octanol / water | Not Available  |
| Odour threshold                              | Not Available   | Auto-ignition temperature (°C)          | Not Available  |
| pH (as supplied)                             | Not Available   | Decomposition temperature (°C)          | Not Available  |
| Melting point / freezing point (°C)          | Not Available   | Viscosity (cSt)                         | Not Available  |
| Initial boiling point and boiling range (°C) | Not Available   | Molecular weight (g/mol)                | Not Applicable |
| Flash point (°C)                             | Not Available   | Taste                                   | Not Available  |
| Evaporation rate                             | Not Available   | Explosive properties                    | Not Available  |
| Flammability                                 | Not Applicable  | Oxidising properties                    | Not Available  |
| Upper Explosive Limit (%)                    | Not Available   | Surface Tension (dyn/cm or mN/m)        | Not Available  |
| Lower Explosive Limit (%)                    | Not Available   | Volatile Component (%vol)               | Not Available  |
| Vapour pressure (kPa)                        | Not Available   | Gas group                               | Not Available  |
| Solubility in water                          | Not Available   | pH as a solution (1%)                   | Not Available  |
| Vapour density (Air = 1)                     | Not Available   | VOC g/L                                 | Not Available  |
| Heat of Combustion (kJ/g)                    | Not Available   | Ignition Distance (cm)                  | Not Available  |
| Flame Height (cm)                            | Not Available   | Flame Duration (s)                      | Not Available  |

|                                                |               |                                                     |               |
|------------------------------------------------|---------------|-----------------------------------------------------|---------------|
| Enclosed Space Ignition Time Equivalent (s/m3) | Not Available | Enclosed Space Ignition Deflagration Density (g/m3) | Not Available |
|------------------------------------------------|---------------|-----------------------------------------------------|---------------|

SECTION 10 Stability and reactivity

|                                    |                                                                                                                                                                                                  |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | See section 7                                                                                                                                                                                    |
| Chemical stability                 | <ul style="list-style-type: none"><li>▶ Unstable in the presence of incompatible materials.</li><li>▶ Product is considered stable.</li><li>▶ Hazardous polymerisation will not occur.</li></ul> |
| Possibility of hazardous reactions | See section 7                                                                                                                                                                                    |
| Conditions to avoid                | See section 7                                                                                                                                                                                    |
| Incompatible materials             | See section 7                                                                                                                                                                                    |
| Hazardous decomposition products   | See section 5                                                                                                                                                                                    |

SECTION 11 Toxicological information

Information on toxicological effects

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| a) Acute Toxicity                    | There is sufficient evidence to classify this material as acutely toxic.                                |
| b) Skin Irritation/Corrosion         | There is sufficient evidence to classify this material as skin corrosive or irritating.                 |
| c) Serious Eye Damage/Irritation     | There is sufficient evidence to classify this material as eye damaging or irritating                    |
| d) Respiratory or Skin sensitisation | There is sufficient evidence to classify this material as sensitising to skin or the respiratory system |
| e) Mutagenicity                      | There is sufficient evidence to classify this material as mutagenic                                     |
| f) Carcinogenicity                   | Based on available data, the classification criteria are not met.                                       |
| g) Reproductivity                    | Based on available data, the classification criteria are not met.                                       |
| h) STOT - Single Exposure            | Based on available data, the classification criteria are not met.                                       |
| i) STOT - Repeated Exposure          | Based on available data, the classification criteria are not met.                                       |
| j) Aspiration Hazard                 | Based on available data, the classification criteria are not met.                                       |

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled      | <p>The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.</p> <p>The highly irritant properties of ammonia vapour result as the gas dissolves in mucous fluids and forms irritant, even corrosive solutions. Inhalation of the ammonia fumes causes coughing, vomiting, reddening of lips, mouth, nose, throat and conjunctiva while higher concentrations can cause temporary blindness, restlessness, tightness in the chest, pulmonary oedema (lung damage), weak pulse and cyanosis.</p> <p>Inhalation of high concentrations of vapour may cause breathing difficulty, tightness in chest, pulmonary oedema and lung damage. Brief exposure to high concentrations &gt; 5000 ppm may cause death due to asphyxiation (suffocation) or fluid in the lungs.</p> <p>Prolonged or regular minor exposure to the vapour may cause persistent irritation of the eyes, nose and upper respiratory tract. Massive ammonia exposures may produce chronic airway hyperactivity and asthma with associated pulmonary function changes. The average nasal retention of ammonia by human subjects was found to be 83%.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Ingestion    | Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Skin Contact | <p>This material can cause inflammation of the skin on contact in some persons.</p> <p>The material may accentuate any pre-existing dermatitis condition</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Eye          | If applied to the eyes, this material causes severe eye damage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Chronic      | <p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Ample evidence exists that developmental disorders are directly caused by human exposure to the material. Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material. Ample evidence exists, from results in experimentation, that developmental disorders are directly caused by human exposure to the material. Animal testing shows that 2,4-diaminoanisole sulfate (DAAS) can increase the incidence of a number of tumours, including thyroid cancer, skin cancer, cancer of the sweat glands and cancer of the clitoris or penis. DAAS has also been shown to cause birth defects in animals. m-Phenylenediamine is suspected as a cause of bladder cancers in "aniline" workers. Ocular toxicity and a death from subacute liver necrosis have been reported from contact with commercial hair dyes containing m-phenylenediamine. Workers in a factory producing m-phenylenediamine were exposed for 5 to 10 years to the material. of the workers (30 to 50 years old), 13.% complained of dysuria. A scratch test with m-phenylenediamine produced positive reactions in 8% of the persons who also suffered from eosinophiluria and had urinary m-phenylenediamine levels of 0.3 to 40 ug/100 ml. Cytoscopy showed oedema of the mucous membranes, polypous swellings and infiltration in the urinary bladder. The eosinophilic character of these alterations was confirmed cytologically. Long term administration to experimental animals causes liver and kidney damage (after oral and percutaneous absorption, and percutaneous absorption respectively). m-Phenylenediamine administered orally to experimental animals in the diet or drinking water failed to induce tumours. On the other hand when injected subcutaneously, malignant tumours or sarcomas developed at the injection site p-phenylenediamine is suspected as a cause of bladder cancer in aniline workers. Long term exposure may produce irritation of the mucous membranes, asthma, fluid build-up and liver damage. Fur workers have experienced asthma and persistent upper airway irritation. P-phenylenediamine used in skin dyes have resulted in severe damage of the kidney and other organs, causing rapid death in several cases. P-phenylenediamine causes mutations, but there is no evidence of it causing damage to the embryo or birth defects. Cancer-causing potential cannot be ruled out.</p> <p>Prolonged or repeated minor exposure to ammonia gas/vapour may cause long-term irritation to the eyes, nose and upper airway. Repeated exposure or prolonged contact may produce skin inflammation and conjunctivitis. Other effects may include ulcers in the mouth and disturbances to the bronchi and gastrointestinal tract. In animals, repeated exposure to sublethal levels produces adverse effects on the airways, liver, kidneys and spleen, as well as eye irritation and clouding of the cornea.</p> |

|                                           |                                                                                                                                                                                                                                                                                                                                                                              |                                                                   |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
|                                           | Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents. Ample evidence exists that this material directly causes reduced fertility<br>Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping. |                                                                   |
| Lucky Super Soft Hair Color For Men Black | TOXICITY<br>Not Available                                                                                                                                                                                                                                                                                                                                                    | IRRITATION<br>Not Available                                       |
| alcohols C14-C18                          | TOXICITY<br>Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                      | IRRITATION<br>Not Available                                       |
| alcohols C16-18 ethoxylated               | TOXICITY                                                                                                                                                                                                                                                                                                                                                                     | IRRITATION                                                        |
|                                           | Dermal (rabbit) LD50: >3000 mg/kg <sup>[1]</sup>                                                                                                                                                                                                                                                                                                                             | Eye (Rodent - rabbit): 100uL/24H - Moderate                       |
|                                           | Inhalation (Rat) LC50: >1.6 mg/l4h <sup>[1]</sup>                                                                                                                                                                                                                                                                                                                            | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|                                           | Oral (Rat) LD50: 1260 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                                   | Skin (Rodent - rabbit): 500uL/24H - Moderate                      |
| ethanolamine                              |                                                                                                                                                                                                                                                                                                                                                                              | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                           | TOXICITY                                                                                                                                                                                                                                                                                                                                                                     | IRRITATION                                                        |
|                                           | Dermal (rabbit) LD50: 1000 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                              | Eye (Rodent - rabbit): 250ug - Severe                             |
|                                           | Inhalation(Guinea) LC50; ~0.145 mg/l4h <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                        | Eye: adverse effect observed (irreversible damage) <sup>[1]</sup> |
| octadecyltrimethylammonium chloride       | Oral (Guinea) LD50; 620 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                                 | Skin (Mammal - species unspecified): 5%                           |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Rodent - rabbit): 505mg - Moderate                          |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin: adverse effect observed (corrosive) <sup>[1]</sup>          |
| p-phenylenediamine                        | TOXICITY                                                                                                                                                                                                                                                                                                                                                                     | IRRITATION                                                        |
|                                           | dermal (mouse) LD50: 1600 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                               | Skin: adverse effect observed (corrosive) <sup>[1]</sup>          |
|                                           | Oral (Rat) LD50: 536 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                                    |                                                                   |
|                                           | Dermal (rabbit) LD50: >7940 mg/kg <sup>[1]</sup>                                                                                                                                                                                                                                                                                                                             | Eye (Rodent - rabbit): 30mg/24H - Mild                            |
|                                           | Inhalation (Rat) LC50: 0.92 mg/L4h <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                            | Eye: adverse effect observed (irritating) <sup>[1]</sup>          |
|                                           | Oral (Rat) LD50: 80 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                                     | Skin (Human - man): 1%                                            |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human - man): 1% - Moderate                                 |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human - woman): 1%                                          |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human): 250mg/24H - Mild                                    |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Mammal - dog): 250mg/24H - Mild                             |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Mammal - pig): 250mg/24H - Mild                             |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Rodent - guinea pig): 250mg/24H - Mild                      |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Rodent - mouse): 250mg/24H - Mild                           |
| 2,5-diaminotoluene sulfate                |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Rodent - rabbit): 12500ug/24H - Mild                        |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Rodent - rabbit): 250mg/24H - Moderate                      |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
| glyceryl monostearate                     | TOXICITY                                                                                                                                                                                                                                                                                                                                                                     | IRRITATION                                                        |
|                                           | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>                                                                                                                                                                                                                                                                                                                                | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
| propylene glycol                          | Oral (Mouse) LD50; >5000 mg/kg <sup>[1]</sup>                                                                                                                                                                                                                                                                                                                                | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                           | TOXICITY                                                                                                                                                                                                                                                                                                                                                                     | IRRITATION                                                        |
|                                           | Dermal (rabbit) LD50: 11890 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                             | Eye (Rodent - rabbit): 100mg - Mild                               |
|                                           | Inhalation (Rat) LC50: >44.9 mg/l4h <sup>[1]</sup>                                                                                                                                                                                                                                                                                                                           | Eye (Rodent - rabbit): 500mg/24H - Mild                           |
|                                           | Oral (Rat) LD50: 20000 mg/kg <sup>[2]</sup>                                                                                                                                                                                                                                                                                                                                  | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human - child): 30%/96H(continuous) - Moderate              |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human - man): 10%/2D                                        |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human - woman): 30%/96H - Mild                              |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human): 104mg/3D (intermittent) - Moderate                  |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human): 20%                                                 |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin (Human): 500mg/7D - Mild                                     |
|                                           |                                                                                                                                                                                                                                                                                                                                                                              | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |

|                                               |                                                       |                                                                   |
|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------|
| resorcinol                                    | TOXICITY                                              | IRRITATION                                                        |
|                                               | Dermal (rabbit) LD50: 3360 mg/kg <sup>[2]</sup>       | Eye (Rodent - rabbit): 100mg - Severe                             |
|                                               | Inhalation (Rat) LC50: 5.325-78 mg/l4h <sup>[2]</sup> | Eye (Rodent - rabbit): 100mg - Severe                             |
|                                               | Oral (Rat) LD50: 301 mg/kg <sup>[2]</sup>             | Eye: adverse effect observed (irreversible damage) <sup>[1]</sup> |
|                                               |                                                       | Skin (Rodent - rabbit): 20mg/24H - Moderate                       |
|                                               |                                                       | Skin (Rodent - rabbit): 500mg                                     |
|                                               |                                                       | Skin (Rodent - rabbit): 500mg - Severe                            |
| ethanol                                       | TOXICITY                                              | IRRITATION                                                        |
|                                               | Dermal (rabbit) LD50: 17100 mg/kg <sup>[1]</sup>      | Eye (Rodent - rabbit): 0.1mL                                      |
|                                               | Inhalation (Rat) LC50: 64000 ppm4h <sup>[2]</sup>     | Eye (Rodent - rabbit): 100mg/4S - Moderate                        |
|                                               | Oral (Rat) LD50: 7060 mg/kg <sup>[2]</sup>            | Eye (Rodent - rabbit): 100uL - Moderate                           |
|                                               |                                                       | Eye (Rodent - rabbit): 500mg - Severe                             |
|                                               |                                                       | Eye (Rodent - rabbit): 500mg/24H - Mild                           |
|                                               |                                                       | Eye: adverse effect observed (irritating) <sup>[1]</sup>          |
|                                               |                                                       | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|                                               |                                                       | Skin (Human): 70%/2D                                              |
|                                               |                                                       | Skin (Rodent - rabbit): 20mg/24H - Moderate                       |
| sodium sulfite                                | TOXICITY                                              | IRRITATION                                                        |
|                                               | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>         | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|                                               | Inhalation (Rat) LC50: >5.5 mg/l4h <sup>[2]</sup>     | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                               | Oral (Mouse) LD50; 820 mg/kg <sup>[2]</sup>           |                                                                   |
| m-aminophenol                                 | TOXICITY                                              | IRRITATION                                                        |
|                                               | Dermal (rabbit) LD50: >5000 mg/kg <sup>[1]</sup>      | Eye (Rodent - rabbit): 100mg/24H - Moderate                       |
|                                               | Oral (Mouse) LD50; 401 mg/kg <sup>[2]</sup>           | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|                                               |                                                       | Skin (Human - woman): 1%                                          |
|                                               |                                                       | Skin (Rodent - rabbit): 12500ug/24H - Mild                        |
| EDTA disodium salt                            | TOXICITY                                              | IRRITATION                                                        |
|                                               | Oral (Rat) LD50: 2000 mg/kg <sup>[2]</sup>            | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
|                                               |                                                       | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
| ammonia                                       | TOXICITY                                              | IRRITATION                                                        |
|                                               | Inhalation (Rat) LC50: 2000 ppm4h <sup>[2]</sup>      | Eye (Rodent - rabbit): 1mg/30S - Severe                           |
|                                               | Oral (Rat) LD50: 350 mg/kg <sup>[2]</sup>             | Eye (Rodent - rabbit): 250ug - Severe                             |
| sodium erythorbate                            | TOXICITY                                              | IRRITATION                                                        |
|                                               | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>      | Eye (Rodent - rabbit): 100mg - Mild                               |
|                                               | Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>           | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>   |
| HC Orange no. 1                               | TOXICITY                                              | IRRITATION                                                        |
|                                               | Oral (Rat) LD50: 1250 mg/kg <sup>[2]</sup>            | Eye (Rodent - rabbit): 100mg - Mild                               |
| 2-(2,4-diaminophenoxy)ethanol dihydrochloride | TOXICITY                                              | IRRITATION                                                        |
|                                               | dermal (rat) LD50: >=45450 mg/kg <sup>[1]</sup>       | Eye: adverse effect observed (irreversible damage) <sup>[1]</sup> |
| N,N-diocetadecylmethylamine                   | TOXICITY                                              | IRRITATION                                                        |
|                                               | Oral (Rat) LD50: >=1000<=1250 mg/kg <sup>[1]</sup>    | Eye (Rodent - rabbit): 20mg/24H - Moderate                        |
|                                               |                                                       | Skin (Rodent - rabbit): 20mg/24H - Moderate                       |
| 1,1'-oxydi-2-propanol                         | TOXICITY                                              | IRRITATION                                                        |
|                                               | Dermal (rabbit) LD50: >2000 mg/kg <sup>[2]</sup>      | Eye (Rodent - rabbit): 500mg - Mild                               |

## Lucky Super Soft Hair Color For Men Black

Oral (Rat) LD50: 14800 mg/kg<sup>[2]</sup>

Skin (Rodent - rabbit): 500uL/24H - Moderate

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

## ALCOHOLS C16-18 ETHOXYLATED

Remarks: Patch test on human volunteers did not demonstrate sensitization properties. \* Cognis MSDS for Ceteraeth -20 The skin sensitising potential was assessed with C16-18AE (CAS 68439-49-6) in a Buehler Test according to OECD Guideline 406. In this study 20 female guinea pigs were induced by an epicutaneous occlusive dressing with 100% test substance (in maize oil) for 6 h on Day 0, 7 and 14. Two weeks after the last induction animals were challenged by epicutaneous occlusive exposure for 6 h to 100% test substance (in maize oil). 24 and 48 h after patch removal the application site was assessed for signs of local irritation. No dermal reactions were observed in any test animal at any time point. Available oral toxicity studies provide a coherent picture on the subchronic and chronic oral toxicity of AE. Based on the described effects and argumentations, the dietary NOAEL of 500 mg/kg bw/day (Shell, 1982) representing an average of all NOAELs, was chosen for the risk assessment. The clastogenic potential was assessed in a chromosomal aberration test with C16-18AE (CAS 68439-49-6) in mammalian cells according to OECD Guideline 473. Chinese hamster ovary cells (CHO) were exposed to 313, 625, 1250, 2500 and 5000 µg/mL in the presence and 1.25, 2.5, 5, 10, 20, 39 and 78 µg/mL in the absence of metabolic activation. Positive and vehicle (1% ethanol) control cultures were included in each assay. No increases in the number of chromosome aberrations in the presence or absence of metabolic activation were seen at any concentration tested. Appropriate reference mutagens used as positive controls showed a significant increase in chromosome aberrations, thus indicating the sensitivity of the assay, and the efficacy of the S9-mix. Hence, the test substance can not be regarded as clastogenic. The mutagenic potential in mammalian cells was assessed with C16-18AE (CAS 68439-49-6) by a HPRT-assay according to OECD Guideline 476. Following pre-tests with the concentration ranging from 1-100 µg/mL, the latter being the solubility limit of the test substance, Chinese hamster ovary cells were exposed for 4 h to concentrations of 1.8, 6, 18, 60 and 100 µg/mL in the absence and presence of metabolic activation by rat liver S9-mix. No dose-related increases in mutant colony numbers were obtained in two independent experiments with the test substance in either the presence or absence of S9-mix. Appropriate reference mutagens used as positive controls produced highly significant increases in mutation frequency, thus indicating the sensitivity of the assay. Therefore, the test substance is regarded as not mutagenic in mammalian cells. In conclusion, C16AE (CAS 52609-19-5) is regarded as non-genotoxic a reproductive toxicity study on a structurally similar material, C14-15AE7 (CAS 68951-67-7) was conducted at dietary levels of 25, 50 and 250 mg/kg bw/day. The 2-generation study (Procter and Gamble Ltd., 1977: Long term reproduction and teratology study in rats with Neodol 45-7; unpublished report) did not show any potential for reproductive toxicity at the tested dose levels. The NOAEL for reproductive effects was greater than the highest tested dose of 250 mg/kg bw/day. Although the study was pre-GLP and not in full compliance with current OECD guidelines, the study provided sufficient information and was assessed to be scientifically reliable. The comparable toxicokinetic and metabolic profiles, as well as their toxicological similarities for this and other toxicological endpoints, support the conclusion that insights from the reproductive toxicity study on higher ethoxylated AE are applicable to AE with an ethoxylation degree of 1 - 2.5. \* REACH Dossier Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products.

Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitizers. The oxidization products also cause irritation.

Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.

Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to severe irritation occurred when undiluted alcohol ethoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates.

Some of the oxidation products of this group of substances may have sensitizing properties.

As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing.

Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.

Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal. However, repeated exposure may cause dose dependent damage to the kidneys as well as reproductive and developmental defects.

## ETHANOLAMINE

\* Bayer

Overexposure to most of these materials may cause adverse health effects.

Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient.

There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing.

Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage. Repeated and/or prolonged exposure to some amines may result in liver disorders, jaundice and liver enlargement. Some amines have been shown to cause kidney, blood and central nervous system disorders in animal studies.

While most polyurethane amine catalysts are not sensitizers, some certain individuals may also become sensitized to amines and may experience distress while breathing, including asthma-like attacks, whenever they are subsequently exposed to even very small amounts of vapours. Once sensitized, these individuals must avoid any further exposure to amines. Chronic overexposure may lead to permanent lung injury, including reduction in lung function, breathlessness, chronic inflammation of the bronchi, and immunologic lung disease.

Products with higher vapour pressures may reach higher concentrations in the air, and this increases the likelihood of worker exposure.

Inhalation hazards are increased when exposure to amine catalysts occurs in situations that produce aerosols, mists or heated vapours. Such situations include leaks in fitting or transfer lines. Medical conditions generally aggravated by inhalation exposure include asthma, bronchitis and emphysema.

Skin contact: Skin contact with amine catalysts poses a number of concerns. Direct skin contact can cause moderate to severe irritation and injury, from simple redness and swelling to painful blistering, ulceration, and chemical burns. Repeated or prolonged exposure may also result in severe cumulative skin inflammation. Skin contact with some amines may result in allergic sensitization. Sensitized persons should avoid all contact with amine catalysts. Whole-body effects resulting from the absorption of the amines through skin exposure may include headaches, nausea, faintness, anxiety, decrease in blood pressure, reddening of the skin, hives, and facial swelling. These symptoms may be related to the pharmacological action of the amines, and they are usually temporary.

Eye contact: Amine catalysts are alkaline and their vapours are irritating to the eyes, even at low concentrations. Direct contact with liquid amine may cause severe irritation and tissue injury, and the "burning" may lead to blindness. Contact with solid products may result in mechanical irritation, pain and corneal injury.

Continued...

# Lucky Super Soft Hair Color For Men Black

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|                                            | <p>Exposed persons may experience excessive tearing, burning, inflammation of the conjunctiva, and swelling of the cornea, which manifests as a blurred or foggy vision with a blue tint, and sometimes a halo phenomenon around lights. These symptoms are temporary and usually disappear when exposure ends. Some people may experience this effect even when exposed to concentrations that do not cause respiratory irritation.</p> <p>Ingestion: Amine catalysts have moderate to severe toxicity if swallowed. Some amines can cause severe irritation, ulcers and burns of the mouth, throat, gullet and gastrointestinal tract. Material aspirated due to vomiting can damage the bronchial tubes and the lungs. Affected people may also experience pain in the chest or abdomen, nausea, bleeding of the throat and gastrointestinal tract, diarrhea, dizziness, drowsiness, thirst, collapse of circulation, coma and even death.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>OCTADECYLTRIMETHYLAMMONIUM CHLORIDE</b> | <p>Somnolence, ataxia, diarrhoea, allergic dermatitis after systemic exposure recorded.</p> <p>For alkyltrimethylammonium chloride (ATMAC)</p> <p>Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. In addition, certain surfactants will satisfy the criteria for classification as Corrosive with R34 in addition to the acute toxicity.</p> <p>According to Centre Europeen des Agents de Surface et de leurs Intermediaires Organiques (CESIO), C8-18 alkyltrimethylammonium chloride (ATMAC) (i.e., lauryl, coco, soya, and tallow) are classified as Corrosive (C ) with the risk phrases R22 (Harmful if swallowed) and R34 (Causes burns). C16 ATMAC is classified as Harmful (Xn) with the risk phrases R22 (Harmful if swallowed), R38 (Irritating to skin), and R41 (Risk of serious damage to eyes). C20-22 ATMAC are classified as Irritant (Xi) with R36/38 (Irritating to eyes and skin).</p> <p>Acute toxicity: ATMAC (the bromide) is poorly absorbed through the skin or the digestive tract. Acute oral toxicity of alkyltrimethylammonium salts is somewhat higher than the toxicity of anionic and nonionic surfactants. This may be due to the strongly irritating effect which cationic surfactants have on the mucous membrane of the gastrointestinal tract. Cationic surfactants are generally about 10 times more toxic when given through a vein, compared to being given by mouth.</p> <p>Skin and eye irritation: Skin irritation depends on surfactant concentration. Concentrations above 1% generally cause pronounced irritation. Cationic surfactants are the most irritating surfactants to the eye.</p> <p>Many proteins in the skin are considerably more resistant to the denaturing effects of cationic surfactants compared to those of anionic surfactants. In contrast to the irreversible denaturing effect of sodium dodecyl sulfate, the adverse effects of some cationic surfactants on proteins may be reversible.</p> <p>Sensitisation: A repeated patch test performed on human volunteers did not show sensitization.</p> <p>Sub-chronic toxicity: Animal testing over the long term resulted in no effects, except for reduced body weight at very high doses.</p> <p>Reproductive toxicity: Animal testing showed no effects toxic to the embryo or causing birth defects. Mild effects on the embryo were seen only at levels which were toxic to the mother.</p> <p>Mutation-causing potential: Animal testing showed no mutation-causing potential for C16 and C18 ATMAC.</p> <p>For quaternary ammonium compounds (QACs): Quaternary ammonium compounds (QACs) are cationic surfactants. They are in general more toxic than anionic and non-ionic surfactants. Because they can dissolve phospholipids and cholesterol in lipid membranes, QACs affect cell permeability which may lead to cell death. Further, QACs denature proteins as cationic materials precipitate protein and are accompanied by generalized tissue irritation.</p> <p>It has been suggested that the experimentally determined decrease in the acute toxicity of QAs with chain length above C16 is due to decreased water solubility. In general it appears that QACs with single long-chain alkyl groups are more toxic and irritating than those with two such substitutions.</p> <p>Animal testing shows that straight chain aliphatic QACs may cause lung tissue to release histamine. QACs may also show curare-like properties, causing limb paralysis and even life-threatening paralysis of the muscles of breathing, if they are injected. This paralysis seems to be transient.</p> <p>From human testing, it is concluded that all the compounds investigated to date show similar toxicological properties.</p> |
| <b>2,5-DIAMINOTOLUENE SULFATE</b>          | <p>Diaminotoluenes are considered toxic and highly irritant chemicals. In humans, as in animals, they irritate the mucous membranes and skin, and lead to eye infection and clouding of the cornea. When solutions come into contact with skin, they can cause irritation, severe skin inflammation and blistering. Inhaling fumes can result in coughing, difficulty breathing, and respiratory distress. Animal testing shows that diaminotoluenes can depress the central nervous system, causing erection of hair, drooped eyelids, inco-ordination and tremors, with chronic exposure damaging the kidneys and reducing length of life. Diaminotoluenes can also cause birth defects and damage DNA, as well as cause mutations. Animal testing also shows that diaminotoluenes can potentially cause liver and breast cancer.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>GLYCERYL MONOSTEARATE</b>               | <p>For aliphatic fatty acids (and salts)</p> <p>Acute oral (gavage) toxicity:</p> <p>The acute oral LD50 values in rats for both were greater than &gt;2000 mg/kg bw Clinical signs were generally associated with poor condition following administration of high doses (salivation, diarrhoea, staining, piloerection and lethargy). There were no adverse effects on body weight in any study In some studies, excess test substance and/or irritation in the gastrointestinal tract was observed at necropsy.</p> <p>Skin and eye irritation potential, with a few stated exceptions, is chain length dependent and decreases with increasing chain length According to several OECD test regimes the animal skin irritation studies indicate that the C6-10 aliphatic acids are severely irritating or corrosive, while the C12 aliphatic acid is irritating, and the C14-22 aliphatic acids generally are not irritating or mildly irritating. Human skin irritation studies using more realistic exposures (30-minute, 1-hour or 24-hours) indicate that the aliphatic acids have sufficient, good or very good skin compatibility.</p> <p>Animal eye irritation studies indicate that among the aliphatic acids, the C8-12 aliphatic acids are irritating to the eye while the C14-22 aliphatic acids are not irritating.</p> <p>Eye irritation potential of the ammonium salts does not follow chain length dependence; the C18 ammonium salts are corrosive to the eyes.</p> <p>Dermal absorption:</p> <p>The in vitro penetration of C10, C12, C14, C16 and C18 fatty acids (as sodium salt solutions) through rat skin decreases with increasing chain length. At 86.73 ug C16/cm2 and 91.84 ug C18/cm2, about 0.23% and less than 0.1% of the C16 and C18 soap solutions is absorbed after 24 h exposure, respectively.</p> <p>Sensitisation:</p> <p>No sensitisation data were located.</p> <p>Repeat dose toxicity:</p> <p>Repeated dose oral (gavage or diet) exposure to aliphatic acids did not result in systemic toxicity with NOAELs greater than the limit dose of 1000 mg/kg bw. .</p> <p>Mutagenicity</p> <p>Aliphatic acids do not appear to be mutagenic or clastogenic in vitro or in vivo</p> <p>Carcinogenicity</p> <p>No data were located for carcinogenicity of aliphatic fatty acids.</p> <p>Reproductive toxicity</p> <p>No effects on fertility or on reproductive organs, or developmental effects were observed in studies on aliphatic acids and the NOAELs correspond to the maximum dose tested. The weight of evidence supports the lack of reproductive and developmental toxicity potential of the aliphatic acids category.</p> <p>Given the large number of substances in this category, their closely related chemical structure, expected trends in physical chemical properties, and similarity of toxicokinetic properties, both mammalian and aquatic endpoints were filled using read-across to the closest structural analogue, and selecting the most conservative supporting substance effect level.</p> <p>Structure-activity relationships are not evident for the mammalian toxicity endpoints. That is, the low mammalian toxicity of this category of substances limits the ability to discern structural effects on biological activity. Regardless, the closest structural analogue with the most conservative effect value was selected for read across. Irritation is observed for chain lengths up to a cut-off* at or near 12 carbons).</p>                                                                                                                                                                                                                                                                                                                                                               |

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### Metabolism:

The aliphatic acids share a common degradation pathway in which they are metabolized to acetyl-CoA or other key metabolites in all living systems. Common biological pathways result in structurally similar breakdown products, and are, together with the physico-chemical properties, responsible for similar environmental behavior and essentially identical hazard profiles with regard to human health.

Differences in metabolism or biodegradability of even and odd numbered carbon chain compounds or saturated/ unsaturated compounds are not expected; even-and odd-numbered carbon chain compounds, and the saturated and unsaturated compounds are naturally occurring and are expected to be metabolized and biodegraded in the same manner.

The acid and alkali salt forms of the homologous aliphatic acid are expected to have many similar physicochemical and toxicological properties when they become bioavailable; therefore, data read across is used for those instances where data are available for the acid form but not the salt, and vice versa. In the gastrointestinal tract, acids and bases are absorbed in the undissociated (non-ionised) form by simple diffusion or by facilitated diffusion. It is expected that both the acids and the salts will be present in (or converted to) the acid form in the stomach. This means that for both aliphatic acid or aliphatic acid salt, the same compounds eventually enter the small intestine, where equilibrium, as a result of increased pH, will shift towards dissociation (ionised form). Hence, the situation will be similar for compounds originating from acids and therefore no differences in uptake are anticipated. Note that the saturation or unsaturation level is not a factor in the toxicity of these substances and is not a critical component of the read across process..

### Toxicokinetics:

The turnover of the [14C] surfactants in the rat showed that there was no significant difference in the rate or route of excretion of 14C given by intraperitoneal or subcutaneous administration. The main route of excretion was as 14CO<sub>2</sub> in the expired air at 6 h after administration. The remaining material was incorporated in the body. Longer fatty acid chains are more readily incorporated than shorter chains. At ca. 1.55 and 1.64 mg/kg bw, 71% of the C16:0 and 56% of the C18:0 was incorporated and 21% and 38% was excreted as 14CO<sub>2</sub>, respectively.

Glycidyl fatty acid esters (GEs), one of the main contaminants in processed oils, are mainly formed during the deodorisation step in the refining process of edible oils and therefore occur in almost all refined edible oils. GE are potential carcinogens, due to the fact that they readily hydrolyze into the free form glycidol in the gastrointestinal tract, which has been found to induce tumours in various rat tissues. Therefore, significant effort has been devoted to inhibit and eliminate the formation of GEs.

GEs contain a common terminal epoxide group but exhibit different fatty acid compositions. This class of compounds has been reported in edible oils after overestimation of 3-monochloropropane-1,2-diol (3-MCPD) fatty acid esters analysed by an indirect method, 3-MCPD esters have been studied as food processing contaminants and are found in various food types and food ingredients, particularly in refined edible oils. 3-Monochloropropane-1,2-diol (3-MCPD) and 2-monochloropropane-1,3-diol (2-MCPD) are chlorinated derivatives of glycerol (1,2,3-propanetriol). 3- and 2-MCPD and their fatty acid esters are among non-volatile chloropropanols. Glycidol is associated with the formation and decomposition of 3- and 2-MCPD. It forms monoesters with fatty acids (GE) during the refining of vegetable oils. Chloropropanols are formed in HVP during the hydrochloric acid-mediated hydrolysis step of the manufacturing process. In food production, chloropropanols form from the reaction of endogenous or added chloride with glycerol or acylglycerol.

Although harmful effects on humans and animals have not been demonstrated, the corresponding hydrolysates, 3-MCPD and glycidol, have been identified as rodent genotoxic carcinogens, ultimately resulting in the formation of kidney tumours (3-MCPD) and tumours at other tissue sites (glycidol). Therefore, 3-MCPD and glycidol have been categorised as "possible human carcinogens (group 2B) and "probably carcinogenic to humans (group 2A), respectively, by the International Agency for Research on Cancer (IARC).

Diacylglyceride (DAG) based oils produced by one company were banned from the global market due to "high levels" of GE. Several reports have also suggested that a bidirectional transformation process may occur not only between glycidol and 3-MCPD but also their esterified forms in the presence of chloride ions. The transformation rate of glycidol to 3-MCPD was higher than that of 3-MCPD to glycidol under acidic conditions in the presence of chloride ion.

Precursors of GE in refined oils have been identified as partial acylglycerols, that is, DAGs and monoacylglycerides (MAGs); however, whether they also originate from triacylglycerides (TAGs) is still a topic of controversial debates. Several authors noted that pure TAGs were stable during heat treatment (such as 235 deg C) for 3 h and were therefore not involved in the formation of GE. However, experimental results have shown that small amounts of GE are present in a heat-treated oil model consisting of almost 100% TAGs. The formation of GE from TAGs can be attributed to the pyrolysis of TAGs to DAGs and MAGs. In contrast, 3-MCPD esters in refined oils can be obtained from TAG. Presently, the mechanism for the formation of GE intermediates and the relationship between GE and 3-MCPD esters are still unknown.

For group E aliphatic esters (polyol esters):

The polyol esters, including trimethylolpropane (TMP), Pentaerythritol (PE) and dipentaerythritol (diPE) are unique in their chemical characteristics since they lack beta-tertiary hydrogen atoms, thus leading to stability against oxidation and elimination. Therefore their esters with C5-C10 fatty acids have applications as artificial lubricants. Because of their stability at high temperatures, they are also used in high temperature applications such as industrial oven chain oils, high temperature greases, fire resistant transformer coolants and turbine engines.

Polyol esters that are extensively esterified also have greater polarity, less volatility and enhanced lubricating properties.

Acute toxicity: Animal studies show relatively low toxicity by swallowing. These esters are hydrolysed in the gastrointestinal tract, and studies have not shown evidence of these accumulating in body tissues. Acute toxicity by skin contact was also found to be low.

Repeat dose toxicity: According to animal testing, polyol esters show a low level of toxicity following repeated application, either by swallowing or by skin contact.

Reproductive and developmental toxicity: This group should not produce profound reproductive effects in animals.

Genetic toxicity: Tests have shown this group to be inactive. It is unlikely that these substances cause mutations.

Cancer-causing potential: No association between this group of substances and cancer.

### PROPYLENE GLYCOL

The acute oral toxicity of propylene glycol is very low; large amounts are needed to cause perceptible health damage in humans. Serious toxicity generally occurs only at blood concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time; this is nearly impossible with consuming foods or supplements which contain 1g/kg of PG at most. Poisonings are usually due to injection through a vein or accidental swallowing of large amounts by children. The potential for long-term oral toxicity is also low.

Prolonged contact with propylene glycol is essentially non-irritating to the skin. Undiluted propylene glycol is minimally irritating to the eye, and can produce a slight, temporary inflammation of the conjunctiva. Exposure to mists may cause irritation of both the eye and the upper airway. Inhalation of propylene glycol vapours may be irritating to some individuals. It is therefore recommended that propylene glycol not be used in applications where inhalation exposure or human eye contact with the spray mists of these materials is likely, such as fogs for theatrical productions or antifreeze solutions for emergency eye wash stations.

Propylene glycol is metabolized in humans to pyruvic acid, acetic acid, lactic acid and propionaldehyde; the last of which is potentially hazardous.

Propylene glycol shows no evidence of causing cancer or genetic toxicity.

Research has suggested that individuals who cannot tolerate propylene glycol probably experience a special form of irritation, but they only rarely develop allergic contact dermatitis. Other investigators believe that the incidence of allergic contact dermatitis in people exposed to propylene glycol may be greater than 2% in patients with eczema.

One study strongly suggests a connection between airborne concentrations of propylene glycol in houses and development of asthma and allergic reactions, such as inflammation of the nose and hives, in children.

Another study suggested that the concentration of PGEs (propylene glycol and glycol ethers) in indoor air is linked to increased risk of developing numerous respiratory and immune disorders in children, including asthma, hay fever, eczema and allergies, with increased risk ranging from 50% to 180%. This concentration has been linked to use of water-based paints and water-based system cleansers.

Patients with bladder inflammation and vulvodynia (chronic pain of the vulva) may be especially sensitive to propylene glycol.

Women suffering with yeast infections may notice that some over the counter creams cause intense burning. Post-menopausal women who require the use of an oestrogen cream may notice that creams made with propylene glycol often cause extremely

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|                                                                                                                                                          | <p>uncomfortable burning along the vulva and around the anus. Some electronic cigarette users who inhale propylene glycol vapour may experience dryness of the throat or shortness of breath.</p> <p>Adverse responses to administration of drugs which use propylene glycol as an incipient have been seen in a number of people especially at high doses. These include low blood pressure, slow heart rate, ECG abnormalities, heartbeat irregularities, lactic acidosis, breakdown of red cells and cardiac arrest.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>M-AMINOPHENOL</b>                                                                                                                                     | <p>Spastic paralysis, excitement, effects on fertility, extraembryonic structures, foetotoxicity, foetoletality recorded.</p> <p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>EDTA DISODIUM SALT</b>                                                                                                                                | <p>For ethylenediaminetetraacetic acid (EDTA) and its salts:</p> <p>EDTA is a strong organic acid, with a high affinity for alkaline-earth ions (for example, calcium and magnesium) and heavy-metal ions (such as lead and mercury), resulting in highly stable chelate complexes. The ability of EDTA to complex is used commercially to either promote or inhibit chemical reactions, depending on application.</p> <p>EDTA and its salts are expected to be absorbed by the lungs and the gastrointestinal tract; absorption through skin is unlikely. They cause mild skin irritation, and severe eye irritation. The greatest risk in the human body will occur when the EDTA attempts to scavenge the trace metals used and required by the body. The binding of divalent and trivalent cations by EDTA can cause mineral deficiencies, such as zinc deficiency. These appear to be responsible for all of the known pharmacological effects.</p> <p>EDTA and its salts are mostly eliminated through the urine, with 5% eliminated via the bile, along with the metal ions which are bound to it.</p> <p>Trisodium EDTA has not been found to cause cancer. EDTA and its salts are not likely to cause harm to children and infants at levels likely to be encountered.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>HC ORANGE NO. 1</b>                                                                                                                                   | <p>When administered to rabbits Orange n° 1 produced no oedema or erythema and was considered non-irritant the SCCP is of the opinion that the use of HC Orange n° 1 as an ingredient in non-oxidative hair dye formulations with an on-head concentration of 1% (assuming 100% absolute dye content, does not pose any risk to the health of the consumer HC Orange n° 1 was investigated for the induction of unscheduled DNA synthesis (UDS) in hepatocytes of rats. Test concentrations were selected on information supplied by the sponsor. Hepatocytes for UDS analysis were collected 2-4 h and 12-16 h after administration of HC Orange n° 1. Ninety to 180 minutes after plating the cells were incubated for 4 h with 10 µCi/ml 3 H-thymidine followed by 17-20 h incubation with unlabelled thymidine. Evaluation of autoradiography was done after 8 days. UDS was reported as net nuclear grain: the nuclear grain count subtracted with the average number of grains in 3 nuclear sized areas adjacent to each nucleus. Also the percentage of cells in repair (defined as cells with a net grain count of = 5) was calculated for each animal. Negative and positive controls were in accordance with the OECD guideline. Results Mortality was not observed. Most animals both of the 2-4 h and the 12-16 h treatment time appeared normal immediately following dosing and prior to harvest. Only the control animals of the 12-16 h group suffered from diarrhoea prior to harvest. Prior to scoring, slides were examined for toxic effects of treatment, such as irregularly shaped or very darkly stained nuclei, of which none was detected. Neither a biological relevant increase in mean net nuclear grain count nor in the percentage of cells in repair as compared to the untreated control was found in hepatocytes of any treated animal both for the 2-4 h and the 12-16 h treatment time. Conclusion Under the experimental conditions used HC Orange n° 1 did not induce unscheduled DNA synthesis and, consequently, is not genotoxic in rats in the in vivo UDS test. SCCP/1164/08 Scientific Committee on Consumer Products SCCP OPINION ON HC Orange n° 1 COLIPA n° B47 September 2008<br/><a href="https://ec.europa.eu/health/ph_risk/committees/04_sccp/docs/sccp_o_146.pdf">https://ec.europa.eu/health/ph_risk/committees/04_sccp/docs/sccp_o_146.pdf</a></p> <p>Heating of substituted diphenylamines may generate vapours which can irritate the eyes and airways. Drying of skin and mucous membranes leading to irritation may occur with prolonged or repeated contact. Overexposure may cause skin and airway irritation with dizziness and flu-like symptoms. All show a slight to very low order of toxicity following oral or topical administration. There is very low potential to cause gene mutations.</p> |
| <b>2-(2,4-DIAMINOPHENOXY)ETHANOL DIHYDROCHLORIDE</b>                                                                                                     | <p>SCCP/0979/06 Opinion on 2,4-diaminophenoxyethanol and its salts General toxicity The LD50 of the test item was close to 1000 mg/kg bw. The NOAEL was set at 20 mg/kg bw/day in a rat 13-week toxicity study and in a rat prenatal development toxicity study. Irritation / sensitisation The test substance was not irritant to rabbit skin. It was slightly irritant to rabbit eyes when tested undiluted or at 4% in water. The topical application of undiluted 2,4-diaminophenoxyethanol dihydrochloride did not produce sensitisation reactions in a Buehler test. However, it was considered to be a moderate skin sensitizer in an LLNA study. Dermal absorption The maximum dermal absorption, observed under oxidative conditions in a typical hair dye formulation, was 4.33 µg equiv/cm2.</p> <p>Mutagenicity 2,4-diaminophenoxyethanol HCl was mutagenic in vitro. It induced gene mutations in Salmonella typhimurium strain TA98 in the presence of metabolic activation, and chromosome aberrations and micronuclei in cultured human lymphocytes with or without metabolic activation. In mouse lymphoma L5178Y cells in vitro, statistically significant increases in gene mutations (HPRT) were observed in both experiments conducted, but the increase was small and dose-response was not obvious. Thus, the result is considered equivocal. The test substance did not induce micronuclei in bone marrow erythrocytes or DNA damage (measured by unscheduled DNA synthesis) in rat liver cells in vivo, although both assays showed slight effects in individual animals. In published literature, negative results have been reported for 2,4-diaminophenoxyethanol for the induction of reversion mutations in Salmonella typhimurium strains TA1535, TA100, TA1537, TA1538, and TA98 with and without Aroclor-1254-induced rat-liver microsomal activation system and for the induction of reverse mutations in strain XV185-14C and gene conversions in strain D4 of the yeast Saccharomyces cerevisiae. The urine of rats treated topically, orally or intraperitoneally with 2,4-diaminophenoxyethanol showed no mutagenic activity. Carcinogenicity The test substance was not carcinogenic in a mouse 104-week drinking water study. No conclusion can be drawn from the rat study</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>N,N-DIOCTADECYLMETHYLAMINE</b>                                                                                                                        | <p>FND ether amines and FND amines are very similar in structure (length of chain or degree of saturation), function and toxicity. Acute exposure to FND ether amines by oral, dermal and inhalation may produce moderate to slight toxicity but repeated skin contact can be highly irritating. However, exposure did not produce any organ-specific toxicity, genetic, reproductive or developmental defect same as in FND amines.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>1,1'-OXYDI-2-PROPANOL</b>                                                                                                                             | <p>For dipropylene glycol (DPG) and its isomers:</p> <p>Acute toxicity: Animal testing shows dipropylene glycol is not acutely toxic by mouth, skin contact or inhalation. DPG is slightly irritating to the skin and eyes of rabbits. Based on human data, DPG does not cause skin sensitization.</p> <p>Repeat dose toxicity: Animal testing shows DPG did not cause adverse effects on repeated exposure at low doses. Higher doses may cause kidney damage.</p> <p>Reproductive and developmental toxicity: Animal testing has not shown DPG to cause foetal toxicity or birth defects, at levels which did not cause toxicity to the mother.</p> <p>Genetic toxicity: Studies show that DPG does not cause genetic toxicity.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ALCOHOLS C14-C18 &amp; GLYCERYL MONOSTEARATE &amp; AMMONIA &amp; SODIUM ERYTHORBATE &amp; N,N-DIOCTADECYLMETHYLAMINE</b>                              | <p>No significant acute toxicological data identified in literature search.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ALCOHOLS C16-18 ETHOXYLATED &amp; ETHANOLAMINE &amp; RESORCINOL &amp; AMMONIA</b>                                                                     | <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ALCOHOLS C16-18 ETHOXYLATED &amp; ETHANOLAMINE &amp; P-PHENYLENEDIAMINE &amp; PROPYLENE GLYCOL &amp; RESORCINOL &amp; ETHANOL &amp; M-AMINOPHENOL</b> | <p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ETHANOLAMINE &amp; OCTADECYLTRIMETHYLAMMONIUM CHLORIDE &amp; SODIUM SULFITE &amp;</b>                                                                 | <p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EDTA DISODIUM SALT & AMMONIA & N,N-DIOCTADECYLMETHYLAMINE                                                            | sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.                                                                                                                                                                                                                                                                                     |
| P-PHENYLENEDIAMINE & 2,5-DIAMINOTOLUENE SULFATE & EDTA DISODIUM SALT & 2-(2,4-DIAMINOPHENOXY)ETHANOL DIHYDROCHLORIDE | The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.                                                                                                                                                                    |
| P-PHENYLENEDIAMINE & RESORCINOL & M-AMINOPHENOL                                                                      | The use of oxidative hair dye formulations results in consumer exposure to precursors and couplers as well as to their reaction products. Exposure to reaction products is considerably lower compared to that from precursors and coupler. No exposure to intermediates was noted.<br>The percutaneous absorption rates in the in vitro skin penetration studies of the 14 representative reaction products evaluated ranged from 3.27 to 717.79 ng/cm2 (mean +1SD). This corresponds to 1.9 to 416 ug absorbed dose (i.e. dose potentially bioavailable) per hair dye application (i.e. 0.03 to 6.9 ug/kg bw).<br>In the risk assessment of reaction products general toxicity is not considered a concern due to the low and intermittent exposure (on average once per month).<br>Scientific Committee on Consumer Safety SCCS<br>Opinion on reaction products of oxidative hair dye ingredients formed during hair dyeing processes; September 2010<br><a href="https://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_037.pdf">https://ec.europa.eu/health/scientific_committees/consumer_safety/docs/sccs_o_037.pdf</a> |
| P-PHENYLENEDIAMINE & 2,5-DIAMINOTOLUENE SULFATE & 2-(2,4-DIAMINOPHENOXY)ETHANOL DIHYDROCHLORIDE                      | p-Phenylenediamine is oxidised by the liver microsomal enzymes (S9). Pure p-phenylenediamine does not cause mutations, but after it is oxidized, it does.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| P-PHENYLENEDIAMINE & RESORCINOL & SODIUM SULFITE                                                                     | The substance is classified by IARC as Group 3:<br><b>NOT</b> classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                                   |   |                          |   |
|-----------------------------------|---|--------------------------|---|
| Acute Toxicity                    | ✓ | Carcinogenicity          | ✗ |
| Skin Irritation/Corrosion         | ✓ | Reproductivity           | ✗ |
| Serious Eye Damage/Irritation     | ✓ | STOT - Single Exposure   | ✗ |
| Respiratory or Skin sensitisation | ✓ | STOT - Repeated Exposure | ✗ |
| Mutagenicity                      | ✓ | Aspiration Hazard        | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification  
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

|                                           |               |                    |                               |               |               |
|-------------------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
| Lucky Super Soft Hair Color For Men Black | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| alcohols C14-C18                          | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 48h                | Crustacea                     | 1666mg/l      | 1             |
|                                           | NOEC(ECx)     | 504h               | Crustacea                     | 0.98mg/l      | 1             |
| alcohols C16-18 ethoxylated               | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 72h                | Algae or other aquatic plants | >100mg/l      | 2             |
|                                           | LC50          | 96h                | Fish                          | 1-10mg/l      | Not Available |
|                                           | EC20(ECx)     | 72h                | Algae or other aquatic plants | 0.06mg/l      | 2             |
| ethanolamine                              | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 48h                | Crustacea                     | 65mg/l        | 1             |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 15mg/l        | 1             |
|                                           | EC50          | 96h                | Algae or other aquatic plants | 80mg/l        | 2             |
|                                           | NOEC(ECx)     | 72h                | Algae or other aquatic plants | 4mg/l         | 1             |
|                                           | LC50          | 96h                | Fish                          | 75mg/l        | 1             |
| octadecyltrimethylammonium chloride       | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 48h                | Crustacea                     | ~0.04mg/l     | 2             |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 0.05mg/l      | 2             |
|                                           | NOEC(ECx)     | 504h               | Crustacea                     | >=0.005mg/L   | 2             |
|                                           | LC50          | 96h                | Fish                          | 0.033mg/l     | Not Available |
| p-phenylenediamine                        | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |

Continued...

## Lucky Super Soft Hair Color For Men Black

|                            |                 |                           |                               |              |               |
|----------------------------|-----------------|---------------------------|-------------------------------|--------------|---------------|
|                            | EC50            | 48h                       | Crustacea                     | 0.15mg/l     | 2             |
|                            | BCF             | 672h                      | Fish                          | 20-42        | 7             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | 0.056mg/l    | 2             |
|                            | NOEC(ECx)       | 504h                      | Crustacea                     | 0.001mg/L    | 2             |
|                            | EC50            | 96h                       | Algae or other aquatic plants | 0.154mg/l    | 2             |
|                            | LC50            | 96h                       | Fish                          | 0.028mg/l    | 2             |
| 2,5-diaminotoluene sulfate | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50            | 48h                       | Crustacea                     | 0.51mg/l     | 2             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | 0.31mg/l     | 2             |
|                            | LC50            | 96h                       | Fish                          | 0.36mg/l     | 2             |
|                            | NOEC(ECx)       | 72h                       | Algae or other aquatic plants | 0.218mg/l    | 2             |
| glyceryl monostearate      | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50            | 48h                       | Crustacea                     | >0.01mg/l    | 2             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | >0.01mg/L    | 2             |
|                            | EC50(ECx)       | 48h                       | Crustacea                     | >0.01mg/l    | 2             |
| propylene glycol           | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | LC50            | 96h                       | Fish                          | 710mg/L      | 4             |
|                            | EC50            | 48h                       | Crustacea                     | >114.4mg/L   | 4             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | 19300mg/l    | 2             |
|                            | NOEC(ECx)       | 336h                      | Algae or other aquatic plants | <5300mg/l    | 1             |
| resorcinol                 | EC50            | 96h                       | Algae or other aquatic plants | 19000mg/l    | 2             |
|                            | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50            | 48h                       | Crustacea                     | <=0.8mg/l    | 1             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | 1.1-72mg/l   | 1             |
|                            | NOEC(ECx)       | 504h                      | Crustacea                     | >=0.172mg/L  | 2             |
| ethanol                    | LC50            | 96h                       | Fish                          | 53mg/l       | Not Available |
|                            | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50            | 48h                       | Crustacea                     | 2mg/L        | 4             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | 275mg/l      | 2             |
|                            | LC50            | 96h                       | Fish                          | 42mg/L       | 4             |
| sodium sulfite             | EC50            | 96h                       | Algae or other aquatic plants | <0.001mg/L   | 4             |
|                            | EC50(ECx)       | 96h                       | Algae or other aquatic plants | <0.001mg/L   | 4             |
|                            | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50            | 48h                       | Crustacea                     | 89mg/l       | 2             |
|                            | NOEC(ECx)       | 504h                      | Crustacea                     | >10mg/l      | 2             |
| m-aminophenol              | EC50            | 72h                       | Algae or other aquatic plants | 43.8mg/l     | 2             |
|                            | ErC50           | 72h                       | Algae or other aquatic plants | 447.8mg/l    | 2             |
|                            | EC50            | 96h                       | Algae or other aquatic plants | 48mg/l       | 2             |
|                            | LC50            | 96h                       | Fish                          | 147-215mg/l  | 2             |
|                            | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
| EDTA disodium salt         | LC50            | 96h                       | Fish                          | >100mg/l     | 2             |
|                            | BCF             | 1008h                     | Fish                          | <4           | 7             |
|                            | EC50            | 48h                       | Crustacea                     | 0.447mg/l    | 2             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | 41mg/l       | 2             |
|                            | NOEC(ECx)       | 72h                       | Fish                          | 0.008mg/l    | 4             |
|                            | ErC50           | 72h                       | Algae or other aquatic plants | 62mg/l       | 2             |
| ammonia                    | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50            | 48h                       | Crustacea                     | >100mg/l     | 2             |
|                            | EC50            | 72h                       | Algae or other aquatic plants | >60mg/l      | 2             |
|                            | NOEC(ECx)       | 504h                      | Crustacea                     | 25mg/l       | 2             |
|                            | LC50            | 96h                       | Fish                          | >100mg/l     | 2             |
|                            | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|                            | EC50(ECx)       | 96h                       | Crustacea                     | 0.83mg/L     | 5             |
|                            | LC50            | 96h                       | Fish                          | 33.3mg/L     | 4             |

|                                               |               |                    |                               |               |               |
|-----------------------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
| sodium erythorbate                            | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                               | EC50          | 48h                | Crustacea                     | >84mg/l       | 2             |
|                                               | EC50          | 72h                | Algae or other aquatic plants | >160mg/l      | 2             |
|                                               | LC50          | 96h                | Fish                          | >100mg/l      | 2             |
|                                               | NOEC(ECx)     | 72h                | Algae or other aquatic plants | 20mg/l        | 2             |
| HC Orange no. 1                               | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                               | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| 2-(2,4-diaminophenoxy)ethanol dihydrochloride | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                               | EC50          | 48h                | Crustacea                     | 6.49mg/l      | 2             |
|                                               | EC50          | 72h                | Algae or other aquatic plants | 30.1mg/l      | 2             |
|                                               | LC50          | 96h                | Fish                          | >400mg/l      | 2             |
|                                               | EC10(ECx)     | 72h                | Algae or other aquatic plants | <0.092mg/l    | 2             |
| N,N-diocetadecylmethylamine                   | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                               | EC50          | 48h                | Crustacea                     | 0.056mg/L     | 2             |
|                                               | EC50          | 72h                | Algae or other aquatic plants | 0.006mg/L     | 2             |
|                                               | NOEC(ECx)     | 72h                | Algae or other aquatic plants | 0.001mg/L     | 2             |
|                                               | LC50          | 96h                | Fish                          | >0.1<1mg/l    | 2             |
| 1,1'-oxydi-2-propanol                         | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                               | BCF           | 1008h              | Fish                          | 0.3-1.4       | 7             |

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
**DO NOT** discharge into sewer or waterways.

Persistence and degradability

|                             |                             |                             |
|-----------------------------|-----------------------------|-----------------------------|
| Ingredient                  | Persistence: Water/Soil     | Persistence: Air            |
| ethanolamine                | LOW                         | LOW                         |
| p-phenylenediamine          | LOW (Half-life = 56 days)   | LOW (Half-life = 0.12 days) |
| glyceryl monostearate       | LOW                         | LOW                         |
| propylene glycol            | LOW                         | LOW                         |
| resorcinol                  | LOW                         | LOW                         |
| ethanol                     | LOW (Half-life = 2.17 days) | LOW (Half-life = 5.08 days) |
| m-aminophenol               | HIGH                        | HIGH                        |
| EDTA disodium salt          | LOW                         | LOW                         |
| N,N-diocetadecylmethylamine | HIGH                        | HIGH                        |
| 1,1'-oxydi-2-propanol       | LOW                         | LOW                         |

Bioaccumulative potential

|                                               |                        |
|-----------------------------------------------|------------------------|
| Ingredient                                    | Bioaccumulation        |
| alcohols C14-C18                              | MEDIUM (BCF = 1300)    |
| alcohols C16-18 ethoxylated                   | LOW (LogKOW = 7.92)    |
| ethanolamine                                  | LOW (LogKOW = -1.31)   |
| octadecyltrimethylammonium chloride           | MEDIUM (LogKOW = 4.17) |
| p-phenylenediamine                            | LOW (BCF = 0.38)       |
| glyceryl monostearate                         | HIGH (LogKOW = 6.62)   |
| propylene glycol                              | LOW (BCF = 1)          |
| resorcinol                                    | LOW (BCF = 2.4)        |
| ethanol                                       | LOW (LogKOW = -0.31)   |
| sodium sulfite                                | LOW (LogKOW = -7.78)   |
| m-aminophenol                                 | LOW (BCF = 40)         |
| EDTA disodium salt                            | LOW (LogKOW = -11.7)   |
| ammonia                                       | LOW (LogKOW = -2.66)   |
| 2-(2,4-diaminophenoxy)ethanol dihydrochloride | LOW (LogKOW = -2.25)   |
| N,N-diocetadecylmethylamine                   | LOW (LogKOW = 16.736)  |
| 1,1'-oxydi-2-propanol                         | LOW (BCF = 4.6)        |

Mobility in soil

### Lucky Super Soft Hair Color For Men Black

| Ingredient                 | Mobility               |
|----------------------------|------------------------|
| ethanolamine               | HIGH (Log KOC = 1)     |
| p-phenylenediamine         | LOW (Log KOC = 72.53)  |
| glyceryl monostearate      | LOW (Log KOC = 486.6)  |
| propylene glycol           | HIGH (Log KOC = 1)     |
| resorcinol                 | LOW (Log KOC = 434)    |
| ethanol                    | HIGH (Log KOC = 1)     |
| m-aminophenol              | LOW (Log KOC = 72.53)  |
| EDTA disodium salt         | LOW (Log KOC = 1046)   |
| N,N-dioctadecylmethylamine | LOW (Log KOC = 514700) |
| 1,1'-oxydi-2-propanol      | HIGH (Log KOC = 1)     |

## SECTION 13 Disposal considerations

### Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <ul style="list-style-type: none"> <li>Containers may still present a chemical hazard/ danger when empty.</li> <li>Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li><b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Authority for disposal.</li> <li>Bury or incinerate residue at an approved site.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 14 Transport information

### Labels Required

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
|                  |  |
| Marine Pollutant |  |
| HAZCHEM          | ●3Z                                                                                 |

### Land transport (ADG)

|                                    |                                                                                                                                     |                    |                      |                   |                |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------|-------------------|----------------|
| 14.1. UN number or ID number       | 3082                                                                                                                                |                    |                      |                   |                |
| 14.2. UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains alcohols C16-18 ethoxylated and alcohols C14-C18)                     |                    |                      |                   |                |
| 14.3. Transport hazard class(es)   | <table> <tr> <td>Class</td><td>9</td></tr> <tr> <td>Subsidiary Hazard</td><td>Not Applicable</td></tr> </table>                     | Class              | 9                    | Subsidiary Hazard | Not Applicable |
| Class                              | 9                                                                                                                                   |                    |                      |                   |                |
| Subsidiary Hazard                  | Not Applicable                                                                                                                      |                    |                      |                   |                |
| 14.4. Packing group                | III                                                                                                                                 |                    |                      |                   |                |
| 14.5. Environmental hazard         | Environmentally hazardous                                                                                                           |                    |                      |                   |                |
| 14.6. Special precautions for user | <table> <tr> <td>Special provisions</td><td>274 331 335 375 AU01</td></tr> <tr> <td>Limited quantity</td><td>5 L</td></tr> </table> | Special provisions | 274 331 335 375 AU01 | Limited quantity  | 5 L            |
| Special provisions                 | 274 331 335 375 AU01                                                                                                                |                    |                      |                   |                |
| Limited quantity                   | 5 L                                                                                                                                 |                    |                      |                   |                |

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).

- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

### Air transport (ICAO-IATA / DGR)

|                                  |                                                                                                                                                                              |                 |   |                               |                |          |    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---|-------------------------------|----------------|----------|----|
| 14.1. UN number                  | 3082                                                                                                                                                                         |                 |   |                               |                |          |    |
| 14.2. UN proper shipping name    | Environmentally hazardous substance, liquid, n.o.s. (contains alcohols C16-18 ethoxylated and alcohols C14-C18)                                                              |                 |   |                               |                |          |    |
| 14.3. Transport hazard class(es) | <table> <tr> <td>ICAO/IATA Class</td><td>9</td></tr> <tr> <td>ICAO / IATA Subsidiary Hazard</td><td>Not Applicable</td></tr> <tr> <td>ERG Code</td><td>9L</td></tr> </table> | ICAO/IATA Class | 9 | ICAO / IATA Subsidiary Hazard | Not Applicable | ERG Code | 9L |
| ICAO/IATA Class                  | 9                                                                                                                                                                            |                 |   |                               |                |          |    |
| ICAO / IATA Subsidiary Hazard    | Not Applicable                                                                                                                                                               |                 |   |                               |                |          |    |
| ERG Code                         | 9L                                                                                                                                                                           |                 |   |                               |                |          |    |

Continued...

|                                    |                                                           |                    |
|------------------------------------|-----------------------------------------------------------|--------------------|
| 14.4. Packing group                | III                                                       |                    |
| 14.5. Environmental hazard         | Environmentally hazardous                                 |                    |
| 14.6. Special precautions for user | Special provisions                                        | A97 A158 A197 A215 |
|                                    | Cargo Only Packing Instructions                           | 964                |
|                                    | Cargo Only Maximum Qty / Pack                             | 450 L              |
|                                    | Passenger and Cargo Packing Instructions                  | 964                |
|                                    | Passenger and Cargo Maximum Qty / Pack                    | 450 L              |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions | Y964               |
|                                    | Passenger and Cargo Limited Maximum Qty / Pack            | 30 kg G            |

Sea transport (IMDG-Code / GGVSee)

|                                    |                                                                                                                 |                |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------|
| 14.1. UN number                    | 3082                                                                                                            |                |
| 14.2. UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains alcohols C16-18 ethoxylated and alcohols C14-C18) |                |
| 14.3. Transport hazard class(es)   | IMDG Class                                                                                                      | 9              |
|                                    | IMDG Subsidiary Hazard                                                                                          | Not Applicable |
| 14.4. Packing group                | III                                                                                                             |                |
| 14.5 Environmental hazard          | Marine Pollutant                                                                                                |                |
| 14.6. Special precautions for user | EMS Number                                                                                                      | F-A , S-F      |
|                                    | Special provisions                                                                                              | 274 335 969    |
|                                    | Limited Quantities                                                                                              | 5 L            |

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name                                  | Group         |
|-----------------------------------------------|---------------|
| alcohols C14-C18                              | Not Available |
| alcohols C16-18 ethoxylated                   | Not Available |
| ethanolamine                                  | Not Available |
| octadecyltrimethylammonium chloride           | Not Available |
| p-phenylenediamine                            | Not Available |
| 2,5-diaminotoluene sulfate                    | Not Available |
| glyceryl monostearate                         | Not Available |
| propylene glycol                              | Not Available |
| resorcinol                                    | Not Available |
| ethanol                                       | Not Available |
| sodium sulfite                                | Not Available |
| m-aminophenol                                 | Not Available |
| EDTA disodium salt                            | Not Available |
| ammonia                                       | Not Available |
| sodium erythorbate                            | Not Available |
| HC Orange no. 1                               | Not Available |
| 2-(2,4-diaminophenoxy)ethanol dihydrochloride | Not Available |
| N,N-diocadecylmethylamine                     | Not Available |
| 1,1'-oxydi-2-propanol                         | Not Available |

14.7.3. Transport in bulk in accordance with the IGC Code

| Product name                        | Ship Type     |
|-------------------------------------|---------------|
| alcohols C14-C18                    | Not Available |
| alcohols C16-18 ethoxylated         | Not Available |
| ethanolamine                        | Not Available |
| octadecyltrimethylammonium chloride | Not Available |
| p-phenylenediamine                  | Not Available |
| 2,5-diaminotoluene sulfate          | Not Available |
| glyceryl monostearate               | Not Available |
| propylene glycol                    | Not Available |
| resorcinol                          | Not Available |

| Product name                                  | Ship Type     |
|-----------------------------------------------|---------------|
| ethanol                                       | Not Available |
| sodium sulfite                                | Not Available |
| m-aminophenol                                 | Not Available |
| EDTA disodium salt                            | Not Available |
| ammonia                                       | Not Available |
| sodium erythorbate                            | Not Available |
| HC Orange no. 1                               | Not Available |
| 2-(2,4-diaminophenoxy)ethanol dihydrochloride | Not Available |
| N,N-dioctadecylmethylamine                    | Not Available |
| 1,1'-oxydi-2-propanol                         | Not Available |

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

- alcohols C14-C18 is found on the following regulatory lists**

Australian Inventory of Industrial Chemicals (AIIC)  
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- alcohols C16-18 ethoxylated is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)
- ethanolamine is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)
- octadecyltrimethylammonium chloride is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)
- p-phenylenediamine is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 10 / Appendix C  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)  
Chemical Footprint Project - Chemicals of High Concern List  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
- 2,5-diaminotoluene sulfate is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)
- glyceryl monostearate is found on the following regulatory lists**

Australian Inventory of Industrial Chemicals (AIIC)  
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
- propylene glycol is found on the following regulatory lists**

Australian Inventory of Industrial Chemicals (AIIC)
- resorcinol is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
- ethanol is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australian Inventory of Industrial Chemicals (AIIC)
- sodium sulfite is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
- m-aminophenol is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
Australian Inventory of Industrial Chemicals (AIIC)
- EDTA disodium salt is found on the following regulatory lists**

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australian Inventory of Industrial Chemicals (AIIC)

ammonia is found on the following regulatory lists

- Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6
- Australian Inventory of Industrial Chemicals (AIIC)

sodium erythorbate is found on the following regulatory lists

- Australian Inventory of Industrial Chemicals (AIIC)

HC Orange no. 1 is found on the following regulatory lists

- Australian Inventory of Industrial Chemicals (AIIC)

2-(2,4-diaminophenoxy)ethanol dihydrochloride is found on the following regulatory lists

- Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
- Australian Inventory of Industrial Chemicals (AIIC)

N,N-diocadecylmethylamine is found on the following regulatory lists

- Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
- Australian Inventory of Industrial Chemicals (AIIC)

1,1'-oxydi-2-propanol is found on the following regulatory lists

- Australian Inventory of Industrial Chemicals (AIIC)

Additional Regulatory Information

Not Applicable

National Inventory Status

| National Inventory                              | Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Canada - DSL                                    | No (2,5-diaminotoluene sulfate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Canada - NDSL                                   | No (alcohols C14-C18; alcohols C16-18 ethoxylated; ethanolamine; octadecyltrimethylammonium chloride; p-phenylenediamine; glyceryl monostearate; propylene glycol; resorcinol; ethanol; sodium sulfite; m-aminophenol; EDTA disodium salt; ammonia; sodium erythorbate; 2-(2,4-diaminophenoxy)ethanol dihydrochloride; 1,1'-oxydi-2-propanol)                                                                                                                                                    |
| China - IECSC                                   | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Europe - EINEC / ELINCS / NLP                   | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Japan - ENCS                                    | No (HC Orange no. 1; 2-(2,4-diaminophenoxy)ethanol dihydrochloride)                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Korea - KECI                                    | No (HC Orange no. 1; 2-(2,4-diaminophenoxy)ethanol dihydrochloride)                                                                                                                                                                                                                                                                                                                                                                                                                              |
| New Zealand - NZIoC                             | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Philippines - PICCS                             | No (HC Orange no. 1; 2-(2,4-diaminophenoxy)ethanol dihydrochloride)                                                                                                                                                                                                                                                                                                                                                                                                                              |
| USA - TSCA                                      | TSCA Inventory 'Active' substance(s) (alcohols C14-C18; alcohols C16-18 ethoxylated; ethanolamine; octadecyltrimethylammonium chloride; p-phenylenediamine; 2,5-diaminotoluene sulfate; glyceryl monostearate; propylene glycol; resorcinol; ethanol; sodium sulfite; m-aminophenol; EDTA disodium salt; ammonia; sodium erythorbate; 2-(2,4-diaminophenoxy)ethanol dihydrochloride; N,N-diocadecylmethylamine; 1,1'-oxydi-2-propanol); TSCA Inventory 'Inactive' substance(s) (HC Orange no. 1) |
| Taiwan - TCSI                                   | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mexico - INSQ                                   | No (alcohols C14-C18; alcohols C16-18 ethoxylated; octadecyltrimethylammonium chloride; 2,5-diaminotoluene sulfate; HC Orange no. 1; 2-(2,4-diaminophenoxy)ethanol dihydrochloride)                                                                                                                                                                                                                                                                                                              |
| Vietnam - NCI                                   | No (HC Orange no. 1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Russia - FBEPH                                  | No (alcohols C14-C18; alcohols C16-18 ethoxylated; octadecyltrimethylammonium chloride; HC Orange no. 1; 2-(2,4-diaminophenoxy)ethanol dihydrochloride; 1,1'-oxydi-2-propanol)                                                                                                                                                                                                                                                                                                                   |
| Legend:                                         | <b>Yes = All CAS declared ingredients are on the inventory</b><br><b>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</b>                                                                                                                                                                                                                                                                                  |

SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 19/06/2025 |
| Initial Date  | 16/05/2025 |

SDS Version Summary

| Version | Date of Update | Sections Updated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1     | 19/06/2025     | Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Toxicological information - Acute Health (swallowed), First Aid measures - Advice to Doctor, Physical and chemical properties - Appearance, Toxicological information - Chronic Health, Hazards identification - Classification, Disposal considerations - Disposal, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire fighting), Firefighting measures - Fire Fighter (fire incompatibility), First Aid measures - First Aid (eye), First Aid measures - First Aid (inhaled), First Aid measures - First Aid (skin), First Aid measures - First Aid (swallowed), Handling and storage - Handling Procedure, Stability and reactivity - Instability Condition, Exposure controls / personal protection - Personal Protection (other), Exposure controls / personal protection - Personal Protection (Respirator), Exposure controls / personal protection - Personal Protection (eye), Exposure controls / personal protection - Personal Protection (hands/feet), Accidental release measures - Spills (major), Accidental release measures - Spills (minor), Handling and storage - Storage (storage incompatibility), Handling and storage - Storage (storage requirement), Handling and storage - Storage (suitable container), Transport information - Transport, Transport Information, Identification of the substance / mixture and of the company / undertaking - Use, Name |

Other information

Continued...

**Lucky Super Soft Hair Color For Men Black**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- MARPOL: International Convention for the Prevention of Pollution from Ships
- IMSBC: International Maritime Solid Bulk Cargoes Code
- IGC: International Gas Carrier Code
- IBC: International Bulk Chemical Code
  
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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