

# m-PEG3-Amine **Apollo Scientific**

Part Number: BIPG1581 Version No: 2.2 Safety Data Sheet

Chemwatch Hazard Alert Code: 2

Issue Date: 05/07/2023 Print Date: 05/07/2023 S.GHS.GB-NIR.EN

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

#### **Product Identifier**

| Product name                     | n-PEG3-Amine                            |  |
|----------------------------------|---|--|
| Chemical Name                    | 2-(2-(2-Methoxyethoxy)ethoxy)ethanamine |  |
| Synonyms                         | Not Available                           |  |
| Chemical formula                 | C7-H17-N-O3                             |  |
| Other means of<br>identification | Not Available                           |  |
| CAS number                       | 74654-07-2*                             |  |

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

Relevant identified uses

Not Available

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

| Registered company name | Apollo Scientific                               | Apollo Scientific Itd   |
|-------------------------|---|---|
| Address                 | Whitefield Road, Bredbury SK62QR United Kingdom | Whitefield Road, Bredbury Cheshire SK6 2QR United<br>Kingdom (NI) |
| Telephone               | 01614060505                                     | +44(0) 161 406 0505   |
| Fax                     | 0161 406 0506                                   | Not Available   |
| Website                 | http://www.apolloscientific.co.uk/              | apolloscientific.co.uk  |
| Email                   | sales@apolloscientific.co.uk                    | sales@apolloscientific.co.uk                                      |

# **Emergency telephone number**

| Association / Organisation        | Not Available |
|-----------------------------------|---------------|
| Emergency telephone<br>numbers    | Not Available |
| Other emergency telephone numbers | Not Available |

# **SECTION 2 Hazards identification**

# Classification of the substance or mixture

**Classification according to** regulation (EC) No 1272/2008 [CLP] and amendments [1]

H312 - Acute Toxicity (Dermal) Category 4, H332 - Acute Toxicity (Inhalation) Category 4, H335 - Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) Category 3, H302 - Acute Toxicity (Oral) Category 4, H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2

m-PEG3-Amine

| 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |
|--|
|  |
|  |
| Warning  |
|  |
| Harmful in contact with skin.  |
| Harmful if inhaled.  |
|  |

| 11552 |                                   |  |
|-------|-----------------------------------|--|
| H335  | lay cause respiratory irritation. |  |
| H302  | Harmful if swallowed.             |  |
| H315  | Causes skin irritation.           |  |
| H319  | Causes serious eye irritation.    |  |

# Precautionary statement(s) Prevention

| P271 | Use only outdoors or in a well-ventilated area.                                     |  |
|------|---|--|
| P261 | void 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.                                 |  |
| P280 | 80 Wear protective gloves, protective clothing, eye protection and face protection. |  |

# 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. |  |  |  |
|----------------|--|--|--|--|
| P337+P313      | f eye irritation persists: Get medical advice/attention.   |  |  |  |
| P301+P312      | F SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.   |  |  |  |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |  |  |  |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |  |  |  |
| P330           | Rinse mouth.   |  |  |  |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |  |  |  |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |  |  |  |

# Precautionary statement(s) Storage

| P405      | Store locked up.   |
|-----------|--|
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |

# 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

| CAS No      | %[weight] | Name                | Classification according to regulation (EC) No 1272/2008 [CLP] and amendments   | SCL /<br>M-Factor |
|-------------|-----------|---------------------|---|-------------------|
| 74654-07-2* | 100       | <u>m-PEG3-Amine</u> | Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4,<br>Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation)<br>Category 3, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category<br>2, Serious Eye Damage/Eye Irritation Category 2; H312, H332, H335, H302,<br>H315, H319 <sup>[1]</sup> | Not<br>Available  |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 3. Classification drawn from C&L; \* EU IOELVs available; [e] Substance identified as having endocrine disrupting properties

#### **Mixtures**

See section above for composition of Substances

#### **SECTION 4 First aid measures**

# Description of first aid measures

| Eye Contact  | <ul> <li>If this product comes in contact with the eyes:</li> <li>Wash out immediately with fresh 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>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
|--------------|---|
| Skin Contact | If skin or hair contact occurs: <ul> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>   |
| Inhalation   | <ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>   |
| Ingestion    | <ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>   |

# Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

# **SECTION 5 Firefighting measures**

#### Extinguishing media

There is no restriction on the type of extinguisher which may be used.

Use extinguishing media suitable for surrounding area.

#### Special hazards arising from the substrate or mixture

| Fire Incompatibility | None known. |
|----------------------|-------------|
|----------------------|-------------|

#### Advice for firefighters

| Fire Fighting         | <ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> <li>DO NOT 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> |
|-----------------------|--|
| Fire/Explosion Hazard | <ul> <li>Non combustible.</li> <li>Not considered a significant fire risk, however containers may burn.</li> <li>May emit corrosive fumes.</li> </ul>  |

# **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

|              | Clean up all spills immediately.                        |
|--------------|---|
| Minor Spills | Avoid breathing vapours and contact with skin and eyes. |

|              | <ul> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Wipe up.</li> <li>Place in a suitable, labelled container for waste disposal.</li> </ul>  |
|--------------|--|
| Major Spills | <ul> <li>Moderate hazard.</li> <li>Clear area of personnel and move upwind.</li> <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 course.</li> <li>Stop leak if safe to do so.</li> <li>Contain spill with sand, earth or vermiculite.</li> <li>Collect recoverable product into labelled containers for recycling.</li> <li>Neutralise/decontaminate residue (see Section 13 for specific agent).</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> |

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

# **SECTION 7 Handling and storage**

# Precautions for safe handling

| <ul> <li>When handling, DO NOT eat, drink or smoke.</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> </ul> |
|--|
| <ul> <li>Avoid physical damage to containers.</li> <li>Always wash hands with soap and water after handling.</li> </ul>  |

# Conditions for safe storage, including any incompatibilities

| Suitable container      | <ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul> |
|-------------------------|---|
| Storage incompatibility | None known <ul> <li>Store at 2-8°C</li> </ul>   |

# **SECTION 8 Exposure controls / personal protection**

# Control parameters

# Occupational Exposure Limits (OEL)

#### INGREDIENT DATA

Not Available

Emergency Limits

| Ingredient   | TEEL-1        | TEEL-2        |               | TEEL-3        |
|--------------|---------------|---------------|---------------|---------------|
| m-PEG3-Amine | Not Available | Not Available |               | Not Available |
|              |               |               |               |               |
| Ingredient   | Original IDLH |               | Revised IDLH  |               |
| m-PEG3-Amine | Not Available |               | Not Available |               |

Occupational Exposure Banding

m-PEG3-Amine

| Ingredient                          | Occupational Exposure Band Rating  | Occupational Exposure Band Limit   |   |  |
|-------------------------------------|--|--|---|--|
| m-PEG3-Amine                        | E  | ≤ 0.1 ppm  |   |  |
| Notes:                              | Occupational exposure banding is a process of assigning c<br>potency and the adverse health outcomes associated with<br>band (OEB), which corresponds to a range of exposure cor   | exposure. The output of this process is an occup   | ational exposure  |  |
| xposure controls                    |  |  |   |  |
|                                     | Engineering controls are used to remove a hazard or place<br>engineering controls can be highly effective in protecting we<br>provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job active<br>Enclosure and/or isolation of emission source which keeps<br>that strategically "adds" and "removes" air in the work envir<br>designed properly. The design of a ventilation system must<br>Employers may need to use multiple types of controls to pro-   | orkers and will typically be independent of worker<br>vity or process is done to reduce the risk.<br>a selected hazard "physically" away from the wo<br>onment. Ventilation can remove or dilute an air c<br>match the particular process and chemical or co   | rinteractions to<br>rker and ventilation<br>ontaminant if   |  |
|                                     | General exhaust is adequate under normal operating condi<br>circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storag<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.   | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work  | quate protection.<br>place possess  |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca  | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work  | quate protection.<br>place possess  |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.  | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required t  | quate protection.<br>place possess<br>to effectively remove   |  |
| Appropriate engineering             | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont  | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required t<br>in still air).<br>ainer filling, low speed conveyer transfers,  | quate protection.<br>place possess<br>to effectively remove<br>Air Speed:<br>0.25-0.5 m/s   |  |
| Appropriate engineering<br>controls | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released  | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required t<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)   | quate protection.<br>place possess<br>to effectively remove<br>Air Speed:<br>0.25-0.5 m/s<br>(50-100 f/min)<br>0.5-1 m/s (100-200<br>f/min.)  |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released<br>direct spray, spray painting in shallow booths, drum filling,   | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required t<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)<br>conveyer loading, crusher dusts, gas discharge   | quate protection.           place possess           to effectively remove           Air Speed:           0.25-0.5 m/s           (50-100 f/min)           0.5-1 m/s (100-200 f/min.)           1-2.5 m/s (200-500 f/min.)                      |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released<br>direct spray, spray painting in shallow booths, drum filling,<br>(active generation into zone of rapid air motion)<br>grinding, abrasive blasting, tumbling, high speed wheel ge  | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required t<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)<br>conveyer loading, crusher dusts, gas discharge   | quate protection.           place possess           to effectively remove           Air Speed:           0.25-0.5 m/s           (50-100 f/min)           0.5-1 m/s (100-200 f/min.)           1-2.5 m/s (200-500 f/min.)           2.5-10 m/s |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released<br>direct spray, spray painting in shallow booths, drum filling,<br>(active generation into zone of rapid air motion)<br>grinding, abrasive blasting, tumbling, high speed wheel ge<br>into zone of very high rapid air motion).   | ed respirator. Correct fit is essential to obtain ade<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required t<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)<br>conveyer loading, crusher dusts, gas discharge   | quate protection.           place possess           to effectively remove           Air Speed:           0.25-0.5 m/s           (50-100 f/min)           0.5-1 m/s (100-200 f/min.)           1-2.5 m/s (200-500 f/min.)           2.5-10 m/s |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released<br>direct spray, spray painting in shallow booths, drum filling,<br>(active generation into zone of rapid air motion)<br>grinding, abrasive blasting, tumbling, high speed wheel ge<br>into zone of very high rapid air motion).<br>Within each range the appropriate value depends on:  | ed respirator. Correct fit is essential to obtain ader<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required to<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)<br>conveyer loading, crusher dusts, gas discharge<br>enerated dusts (released at high initial velocity  | quate protection.           place possess           to effectively remove           Air Speed:           0.25-0.5 m/s           (50-100 f/min)           0.5-1 m/s (100-200 f/min.)           1-2.5 m/s (200-500 f/min.)           2.5-10 m/s |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released<br>direct spray, spray painting in shallow booths, drum filling,<br>(active generation into zone of rapid air motion)<br>grinding, abrasive blasting, tumbling, high speed wheel ge<br>into zone of very high rapid air motion).<br>Within each range the appropriate value depends on:<br>Lower end of the range  | ed respirator. Correct fit is essential to obtain ader<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required to<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)<br>conveyer loading, crusher dusts, gas discharge<br>enerated dusts (released at high initial velocity<br>Upper end of the range                                    | quate protection.           place possess           to effectively remove           Air Speed:           0.25-0.5 m/s           (50-100 f/min)           0.5-1 m/s (100-200 f/min.)           1-2.5 m/s (200-500 f/min.)           2.5-10 m/s |  |
|                                     | circumstances. If risk of overexposure exists, wear approve<br>Provide adequate ventilation in warehouse or closed storage<br>varying "escape" velocities which, in turn, determine the "ca<br>the contaminant.<br>Type of Contaminant:<br>solvent, vapours, degreasing etc., evaporating from tank (<br>aerosols, fumes from pouring operations, intermittent cont<br>welding, spray drift, plating acid fumes, pickling (released<br>direct spray, spray painting in shallow booths, drum filling,<br>(active generation into zone of rapid air motion)<br>grinding, abrasive blasting, tumbling, high speed wheel ge<br>into zone of very high rapid air motion).<br>Within each range the appropriate value depends on:<br>Lower end of the range<br>1: Room air currents minimal or favourable to capture | ed respirator. Correct fit is essential to obtain ader<br>ge areas. Air contaminants generated in the work<br>apture velocities" of fresh circulating air required to<br>in still air).<br>ainer filling, low speed conveyer transfers,<br>at low velocity into zone of active generation)<br>conveyer loading, crusher dusts, gas discharge<br>enerated dusts (released at high initial velocity<br>Upper end of the range<br>1: Disturbing room air currents | quate protection.           place possess           to effectively remove           Air Speed:           0.25-0.5 m/s           (50-100 f/min)           0.5-1 m/s (100-200 f/min.)           1-2.5 m/s (200-500 f/min.)           2.5-10 m/s |  |

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

| Individual protection<br>measures, such as<br>personal protective<br>equipment |  |
|--|--|
| Eye and face protection  | <ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>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].</li> </ul> |
| Skin protection  | See Hand protection below  |
| Hands/feet protection  | The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material  |

#### can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, · chemical resistance of glove material, · glove thickness and dexterity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). · When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. · Contaminated gloves should be replaced. As defined in ASTM F-739-96 in any application, gloves are rated as: • Excellent when breakthrough time > 480 min · Good when breakthrough time > 20 min · Fair when breakthrough time < 20 min · Poor when glove material degrades For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended. It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times. Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example: Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber **Body protection** See Other protection below Overalls. ▶ P.V.C apron. Other protection Barrier cream. Skin cleansing cream. Eye wash unit.

#### **SECTION 9 Physical and chemical properties**

#### Information on basic physical and chemical properties

Appearance Not Available

| Appearance                                      | Not Available |  |               |
|---|---------------|--|---------------|
|   |               |  |               |
| Physical state                                  | Liquid        | Relative density (Water =<br>1)            | Not Available |
| Odour   | Not Available | Partition coefficient<br>n-octanol / water | Not Available |
| Odour threshold                                 | Not Available | Auto-ignition temperature<br>(°C)          | Not Available |
| pH (as supplied)                                | Not Available | Decomposition<br>temperature (°C)          | Not Available |
| Melting point / freezing<br>point (°C)          | Not Available | Viscosity (cSt)                            | Not Available |
| Initial boiling point and<br>boiling range (°C) | Not Available | Molecular weight (g/mol)                   | Not Available |
| Flash point (°C)                                | Not Available | Taste                                      | Not Available |

| Evaporation rate          | Not Available | Explosive properties                | Not Available |
|---------------------------|---------------|-------------------------------------|---------------|
| Flammability              | Not Available | Oxidising properties                | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm<br>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 |

# **SECTION 10 Stability and reactivity**

| Reactivity                          | See section 7  |
|-------------------------------------|--|
| Chemical stability                  | <ul> <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<br>products | See section 5  |

# **SECTION 11 Toxicological information**

# Information on toxicological effects

| Inhaled      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
|--------------|---|
| Ingestion    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.  |
| Skin Contact | The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.             |
| Eye          | This material can cause eye irritation and damage in some persons.  |
| Chronic      | Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.  |

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

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

X - Data either not available or does not fill the criteria for classification Legend: Data available to make classification

# **SECTION 12 Ecological information**

# 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

#### Persistence and degradability

| Ingredient | Persistence: Water/Soil               | Persistence: Air                      |  |
|------------|---------------------------------------|---------------------------------------|--|
|            | No Data available for all ingredients | No Data available for all ingredients |  |

#### **Bioaccumulative potential**

| Ingredient | Bioaccumulation                       |  |
|------------|---------------------------------------|--|
|            | No Data available for all ingredients |  |

#### Mobility in soil

| Ingredient | Mobility                              |  |
|------------|---------------------------------------|--|
|            | No Data available for all ingredients |  |

#### **SECTION 13 Disposal considerations**

#### Waste treatment methods

| Product / Packaging<br>disposal | Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.<br>A Hierarchy of Controls seems to be common - the user should investigate:<br>• Reduction<br>• Reuse<br>• Recycling<br>• Disposal (if all else fails)<br>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.<br>• DO NOT allow wash water from cleaning or process equipment to enter drains.<br>• It may be necessary to collect all wash water for treatment before disposal.<br>• In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.<br>• Where in doubt contact the responsible authority.<br>• Recycle wherever possible.<br>• Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.<br>• Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).<br>• Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed. |
|---------------------------------|--|
|---------------------------------|--|

#### **SECTION 14 Transport information**

#### Labels Required

Marine Pollutant NO

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

#### Not Applicable

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

| Product name | Group         |
|--------------|---------------|
| m-PEG3-Amine | Not Available |

# Transport in bulk in accordance with the IGC Code

| Product name | Ship Type     |  |
|--------------|---------------|--|
| m-PEG3-Amine | Not Available |  |

#### **SECTION 15 Regulatory information**

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

# m-PEG3-Amine is found on the following regulatory lists

Europe EC Inventory

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

# **National Inventory Status**

| National Inventory                                 | Status   |  |
|--|--|--|
| Australia - AIIC / Australia<br>Non-Industrial Use | No (m-PEG3-Amine)  |  |
| Canada - DSL                                       | No (m-PEG3-Amine)  |  |
| Canada - NDSL                                      | No (m-PEG3-Amine)  |  |
| China - IECSC                                      | No (m-PEG3-Amine)  |  |
| Europe - EINEC / ELINCS /<br>NLP                   | Yes  |  |
| Japan - ENCS                                       | No (m-PEG3-Amine)  |  |
| Korea - KECI                                       | No (m-PEG3-Amine)  |  |
| New Zealand - NZIoC                                | No (m-PEG3-Amine)  |  |
| Philippines - PICCS                                | No (m-PEG3-Amine)  |  |
| USA - TSCA   | No (m-PEG3-Amine)  |  |
| Taiwan - TCSI                                      | No (m-PEG3-Amine)  |  |
| Mexico - INSQ                                      | No (m-PEG3-Amine)  |  |
| Vietnam - NCI                                      | No (m-PEG3-Amine)  |  |
| Russia - FBEPH                                     | No (m-PEG3-Amine)  |  |
| Legend:  | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require<br>registration. |  |

#### **SECTION 16 Other information**

| Revision Date | 05/07/2023 |
|---------------|------------|
| Initial Date  | 06/07/2023 |

#### SDS Version Summary

| Version | Date of<br>Update | Sections Updated  |
|---------|-------------------|---|
| 1.2     | 05/07/2023        | CAS Number, Hazards identification - Classification, Disposal considerations - Disposal, Exposure controls / personal protection - Engineering Control, Handling and storage - Handling Procedure, Composition / information on ingredients - Ingredients, Stability and reactivity - Instability Condition, Korean MSDS Number, Exposure controls / personal protection - Personal Protection (Respirator), Exposure controls / personal protection - Personal Protection (hands/feet), Accidental release measures - Spills (major), Accidental release measures - Spills (minor), Handling and storage - Storage (storage requirement), Handling and storage - Storage (suitable container), Identification of the substance / mixture and of the company / undertaking - Synonyms |

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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

#### **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

AIIC: Australian Inventory of Industrial Chemicals

DSL: Domestic Substances List

NDSL: 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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

| Classification according to<br>regulation (EC) No<br>1272/2008 [CLP] and<br>amendments                    | Classification Procedure |  |
|---|--------------------------|--|
| Acute Toxicity (Dermal)<br>Category 4, H312   | Expert judgement         |  |
| Acute Toxicity (Inhalation)<br>Category 4, H332   | Expert judgement         |  |
| Specific Target Organ<br>Toxicity - Single Exposure<br>(Respiratory Tract Irritation)<br>Category 3, H335 | Expert judgement         |  |
| Acute Toxicity (Oral)<br>Category 4, H302   | Expert judgement         |  |
| Skin Corrosion/Irritation<br>Category 2, H315   | Expert judgement         |  |
| Serious Eye Damage/Eye<br>Irritation Category 2, H319   | Expert judgement         |  |

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