

## DRM Buffer

### Omega Bio-tek

Version No: 2.5

Safety Data Sheet (Conforms to Annex II of REACH (1907/2006) - Regulation 2020/878)

Chemwatch Hazard Alert Code: 4

Issue Date: 28/12/2022

Print Date: 01/02/2023

S.REACH.NLD.EN

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

### 1.1. Product Identifier

|                               |               |
|-------------------------------|---------------|
| Product name                  | DRM Buffer    |
| Synonyms                      | Not Available |
| Other means of identification | Not Available |

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

|                          |                 |
|--------------------------|-----------------|
| Relevant identified uses | Laboratory use. |
| Uses advised against     | Not Applicable  |

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

|                         |  |   |
|-------------------------|--|---|
| Registered company name | Omega Bio-tek  | Omega Bio-tek   |
| Address                 | 400 Pinnacle Way, Suite 450 Georgia 30071 United States      | Siriusdreef, Transpolis Park 17-27 2131 Netherlands                   |
| Telephone               | +1 770 931 8400  | +31 20 809 3697   |
| Fax                     | Not Available  | Not Available   |
| Website                 | <a href="http://www.omegabiotek.com">www.omegabiotek.com</a> | <a href="http://www.omegabiotek.com/">http://www.omegabiotek.com/</a> |
| Email                   | info@omegabiotek.com   | info@omegabiotek.com  |

### 1.4. Emergency telephone number


|                                   |  |
|-----------------------------------|--|
| Association / Organisation        | CHEMTREC                               |
| Emergency telephone numbers       | North America: +1 800 424 9300         |
| Other emergency telephone numbers | Outside North America: +1 703 527 3887 |

## SECTION 2 Hazards identification

### 2.1. Classification of the substance or mixture

|   |  |
|---|--|
| Classification according to regulation (EC) No 1272/2008 [CLP] and amendments [1] | H302 - Acute Toxicity (Oral) Category 4, H412 - Hazardous to the Aquatic Environment Long-Term Hazard Category 3 |
| Legend:   | 1. Classified by Chemwatch; 2. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                 |

### 2.2. Label elements

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

Hazard statement(s)

|      |  |
|------|--|
| H302 | Harmful if swallowed.                              |
| H412 | Harmful to aquatic life with long lasting effects. |

Supplementary statement(s)

|        |  |
|--------|--|
| EUH032 | Contact with acids liberates very toxic gas. |
| EUH208 | Contains . May produce an allergic reaction. |

Precautionary statement(s) Prevention

|      |   |
|------|---|
| 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.                               |

Precautionary statement(s) Response

|           |   |
|-----------|---|
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell. |
| P330      | Rinse mouth.  |

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

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

2.3. Other hazards

- Cumulative effects may result following exposure\*.
- May produce discomfort of the eyes and respiratory tract\*.
- Possible skin sensitizer\*.
- May possibly be harmful to the foetus/ embryo\*.
- Vapours potentially cause drowsiness and dizziness\*.
- REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

| 1.CAS No<br>2.EC No<br>3.Index No<br>4.REACH No   | %[weight] | Name                  | Classification according to regulation (EC) No 1272/2008 [CLP] and amendments  | SCL / M-Factor | Nanoform Particle Characteristics |
|---|-----------|-----------------------|--|----------------|-----------------------------------|
| 1.593-84-0<br>2.209-812-1<br>3.615-004-00-3<br>4.Not Available  | 20-50     | guanidine thiocyanate | Acute Toxicity (Oral) Category 4, Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4, Hazardous to the Aquatic Environment Long-Term Hazard Category 3; H302, H312, H332, H412 [2] | Not Available  | Not Available                     |
| 1.Not Available<br>2.Not Available<br>3.Not Available<br>4.Not Available  | 0.1-1     | anionic detergent     | Serious Eye Damage/Eye Irritation Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 1; H319, H400 [1]   | Not Available  | Not 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 |           |                       |  |                |                                   |

SECTION 4 First aid measures

4.1. 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>▶ 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 | <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>  |
| 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>   |

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### Ingestion

- ▶ Immediately give a glass of water.
- ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

#### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11

#### 4.3. Indication of any immediate medical attention and special treatment needed

For thiocyanate poisonings haemodialysis is recommended as the treatment of choice. Phenobarbital protects poisoned animals against death. Thiocyanate ion is slowly excreted in the urine and is not decomposed to any appreciable degree to cyanide.

[GOSSELIN, SMITH & HODGE: Clinical Toxicology of Commercial Products 5th Ed]

## SECTION 5 Firefighting measures

### 5.1. Extinguishing media

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

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

#### Fire Incompatibility

- ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

### 5.3. Advice for firefighters

#### Fire Fighting

- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear full body protective clothing with breathing apparatus.
- ▶ Prevent, by any means available, spillage from entering drains or water course.
- ▶ Use water delivered as a fine spray to control fire and cool adjacent area.
- ▶ Avoid spraying water onto liquid pools.
- ▶ **DO NOT** approach containers suspected to be hot.
- ▶ Cool fire exposed containers with water spray from a protected location.
- ▶ If safe to do so, remove containers from path of fire.

#### Fire/Explosion Hazard

- ▶ Combustible.
  - ▶ Slight fire hazard when exposed to heat or flame.
  - ▶ Heating may cause expansion or decomposition leading to violent rupture of containers.
  - ▶ On combustion, may emit toxic fumes of carbon monoxide (CO).
  - ▶ May emit acrid smoke.
  - ▶ Mists containing combustible materials may be explosive.
- Combustion products include:
- carbon dioxide (CO<sub>2</sub>)
  - hydrogen chloride
  - phosgene
  - nitrogen oxides (NO<sub>x</sub>)
  - sulfur oxides (SO<sub>x</sub>)
  - other pyrolysis products typical of burning organic material.
- May emit poisonous fumes.  
May emit corrosive fumes.

## SECTION 6 Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

See section 8

### 6.2. Environmental precautions

See section 12

### 6.3. Methods and material for containment and cleaning up

#### Minor Spills

- ▶ Remove all ignition sources.
- ▶ Clean up all spills immediately.
- ▶ Avoid breathing vapours and contact with skin and eyes.
- ▶ Control personal contact with the substance, by using protective equipment.
- ▶ Contain and absorb spill with sand, earth, inert material or vermiculite.
- ▶ Wipe up.
- ▶ Place in a suitable, labelled container for waste disposal.

#### Major Spills

- ▶ Clear area of personnel and move upwind.
- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Wear full body protective clothing with breathing apparatus.
- ▶ Prevent, by all means available, spillage from entering drains or water courses.
- ▶ Consider evacuation (or protect in place).
- ▶ No smoking, naked lights or ignition sources.
- ▶ Increase ventilation.
- ▶ Stop leak if safe to do so.
- ▶ Water spray or fog may be used to disperse / absorb vapour.
- ▶ Contain or absorb spill with sand, earth or vermiculite.
- ▶ Collect recoverable product into labelled containers for recycling.

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- ▶ Collect solid residues and seal in labelled drums for disposal.
- ▶ Wash area and prevent runoff into drains.
- ▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- ▶ If contamination of drains or waterways occurs, advise emergency services.
- ▶ **DO NOT touch the spill material**

### 6.4. Reference to other sections

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

## SECTION 7 Handling and storage

### 7.1. 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>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ When handling, <b>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.</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.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Fire and explosion protection</b> | See section 5   |
| <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> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>  |

### 7.2. Conditions for safe storage, including any incompatibilities

|  |   |
|--|---|
| <b>Suitable container</b>  | <ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>  |
| <b>Storage incompatibility</b>   | <ul style="list-style-type: none"> <li>▶ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.</li> <li>▶ Metal cyanides are readily oxidised and those of some heavy metals show thermal instability.</li> <li>▶ Metal cyanide and cyanates are often endothermic, Several members of this family of compounds, containing heavy metals tend to explosive instability, and most are capable of violent oxidation under certain circumstances.</li> <li>▶ Fusion of mixtures of metal cyanides with metal chlorates, perchlorates, nitrates or nitrites cause violent explosion.</li> <li>▶ Magnesium reacts with incandescence on heating with several metal cyanides; release of cyanogen by thermal decomposition may cause vigorous reaction with magnesium.</li> <li>▶ Addition of one solid component (even in residual amounts) to another molten component is extremely dangerous.</li> </ul> <p>BREThERICK L.: Handbook of Reactive Chemical Hazards</p> <ul style="list-style-type: none"> <li>▶ Nitriles may polymerise in the presence of metals and some metal compounds.</li> <li>▶ They are incompatible with acids; mixing nitriles with strong oxidising acids can lead to extremely violent reactions.</li> <li>▶ Nitriles are generally incompatible with other oxidising agents such as peroxides and epoxides.</li> <li>▶ The combination of bases and nitriles can produce hydrogen cyanide. Nitriles are hydrolysed exothermally in both aqueous acid and base to give carboxylic acids (or salts of carboxylic acids).</li> <li>▶ Nitriles can react vigorously with reducing agents.</li> <li>▶ The covalent cyano group is endothermic and many organic nitriles are reactive under certain conditions; N-cyano derivatives are reactive or unstable.</li> <li>▶ The majority of endothermic compounds are thermodynamically unstable and may decompose explosively under various circumstances of initiation.</li> <li>▶ Many but not all endothermic compounds have been involved in decompositions, reactions and explosions and, in general, compounds with significantly positive values of standard heats of formation, may be considered suspect on stability grounds.</li> </ul> <p>BREThERICK L.: Handbook of Reactive Chemical Hazards</p> <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul> |
| <b>Hazard categories in accordance with Regulation (EC) No 1272/2008</b>   | Not Available   |
| <b>Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of</b> | Not Available   |

### 7.3. Specific end use(s)

See section 1.2

## SECTION 8 Exposure controls / personal protection

## DRM Buffer

## 8.1. Control parameters

| Ingredient            | DNELs<br>Exposure Pattern Worker   | PNECs<br>Compartment   |
|-----------------------|--|--|
| guanidine thiocyanate | Dermal 0.31 mg/kg bw/day (Systemic, Chronic)<br>Inhalation 1.092 mg/m <sup>3</sup> (Systemic, Chronic)<br>Inhalation 3.28 mg/m <sup>3</sup> (Systemic, Acute)<br>Dermal 0.155 mg/kg bw/day (Systemic, Chronic) *<br>Inhalation 0.27 mg/m <sup>3</sup> (Systemic, Chronic) *<br>Oral 0.155 mg/kg bw/day (Systemic, Chronic) * | 42.4 µg/L (Water (Fresh))<br>4.24 µg/L (Water - Intermittent release)<br>424 µg/L (Water (Marine))<br>165 µg/kg sediment dw (Sediment (Fresh Water))<br>16.5 µg/kg sediment dw (Sediment (Marine))<br>8.03 µg/kg soil dw (Soil)<br>20 mg/L (STP) |

\* Values for General Population

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source        | Ingredient    | Material name | TWA           | STEL          | Peak          | Notes         |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Not Available | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |


Not Applicable

## Emergency Limits

| Ingredient            | TEEL-1                 | TEEL-2               | TEEL-3               |
|-----------------------|------------------------|----------------------|----------------------|
| guanidine thiocyanate | 0.98 mg/m <sup>3</sup> | 11 mg/m <sup>3</sup> | 65 mg/m <sup>3</sup> |

| Ingredient            | Original IDLH | Revised IDLH  |
|-----------------------|---------------|---------------|
| guanidine thiocyanate | Not Available | Not Available |

## 8.2. Exposure controls

|   |  |
|---|--|
| 8.2.1. Appropriate engineering controls | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.</li> <li>Work should be undertaken in an isolated system such as a "glove-box". Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.</li> <li>Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.</li> <li>Open-vessel systems are prohibited.</li> <li>Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.</li> <li>Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system.</li> <li>For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas).</li> <li>Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.</li> <li>Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.</li> </ul> |
| 8.2.2. Personal protection              |   |
| Eye and face protection                 | <ul style="list-style-type: none"> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</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], [AS/NZS 1336 or national equivalent]</li> </ul>  |
| Skin protection                         | See Hand protection below  |
| Hands/feet protection                   | <ul style="list-style-type: none"> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <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>   |

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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.

**Body protection**

See Other protection below

**Other protection**

- ▶ Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]
- ▶ Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715 or national equivalent]
- ▶ Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.
- ▶ Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.
- ▶ Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.
- ▶ Overalls.
- ▶ P.V.C apron.
- ▶ Barrier cream.
- ▶ Skin cleansing cream.
- ▶ Eye wash unit.

**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:

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| Material         | CPI |
|------------------|-----|
| BUTYL            | A   |
| NEOPRENE         | A   |
| NITRILE          | A   |
| NITRILE+PVC      | A   |
| PE/EVAL/PE       | A   |
| PVC              | B   |
| NATURAL RUBBER   | C   |
| NATURAL+NEOPRENE | 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

**Respiratory protection**

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

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|------------------------------------|--|----------------------|----------------------|
| up to 10                           | 1000   | AB-AUS / Class1 P2   | -                    |
| up to 50                           | 1000   | -                    | AB-AUS / Class 1 P2  |
| up to 50                           | 5000   | Airline *            | -                    |
| up to 100                          | 5000   | -                    | AB-2 P2              |
| up to 100                          | 10000  | -                    | AB-3 P2              |
| 100+                               |  |                      | Airline**            |

\* - Continuous Flow \*\* - Continuous-flow or positive pressure demand

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(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO =

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**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.

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

### 8.2.3. Environmental exposure controls

See section 12

## SECTION 9 Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|   |               |  |               |
|---|---------------|--|---------------|
| <b>Appearance</b>                                   | Not Available |  |               |
| <b>Physical state</b>                               | Liquid        | <b>Relative density (Water = 1)</b>            | Not Available |
| <b>Odour</b>  | Not Available | <b>Partition coefficient n-octanol / water</b> | Not Available |
| <b>Odour threshold</b>                              | Not Available | <b>Auto-ignition temperature (°C)</b>          | Not Available |
| <b>pH (as supplied)</b>                             | Not Available | <b>Decomposition temperature (°C)</b>          | Not Available |
| <b>Melting point / freezing point (°C)</b>          | Not Available | <b>Viscosity (cSt)</b>                         | Not Available |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available | <b>Molecular weight (g/mol)</b>                | Not Available |
| <b>Flash point (°C)</b>                             | Not Available | <b>Taste</b>                                   | Not Available |
| <b>Evaporation rate</b>                             | Not Available | <b>Explosive properties</b>                    | Not Available |
| <b>Flammability</b>                                 | Not Available | <b>Oxidising properties</b>                    | Not Available |
| <b>Upper Explosive Limit (%)</b>                    | Not Available | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available |
| <b>Lower Explosive Limit (%)</b>                    | Not Available | <b>Volatile Component (%vol)</b>               | Not Available |
| <b>Vapour pressure (kPa)</b>                        | Not Available | <b>Gas group</b>                               | Not Available |
| <b>Solubility in water</b>                          | Immiscible    | <b>pH as a solution (1%)</b>                   | Not Available |
| <b>Vapour density (Air = 1)</b>                     | Not Available | <b>VOC g/L</b>                                 | Not Available |
| <b>Nanoform Solubility</b>                          | Not Available | <b>Nanoform Particle Characteristics</b>       | Not Available |
| <b>Particle Size</b>                                | Not Available |  |               |

### 9.2. Other information

Not Available

## SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>10.1.Reactivity</b>                          | See section 7.2  |
| <b>10.2. Chemical stability</b>                 | <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> |
| <b>10.3. Possibility of hazardous reactions</b> | See section 7.2  |
| <b>10.4. Conditions to avoid</b>                | See section 7.2  |
| <b>10.5. Incompatible materials</b>             | See section 7.2  |
| <b>10.6. Hazardous decomposition products</b>   | See section 5.3  |



## DRM Buffer

## SECTION 11 Toxicological information

## 11.1. Information on toxicological effects

|                       |   |   |
|-----------------------|---|---|
| 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>Hydrogen chloride (HCl) vapour or fumes present a hazard from a single acute exposure. Exposures of 1300 to 2000 ppm have been lethal to humans in a few minutes.</p> <p>Inhalation of HCl may cause choking, coughing, burning sensation and may cause ulceration of the nose, throat and larynx. Fluid on the lungs followed by generalised lung damage may follow.</p> <p>Breathing of HCl vapour may aggravate asthma and inflammatory or fibrotic pulmonary disease.</p> <p>High concentrations cause necrosis of the tracheal and bronchial epithelium, pulmonary oedema, atelectasis and emphysema and damage to the pulmonary blood vessels and liver.</p> <p>Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful.</p> |   |
| Ingestion             | <p>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.</p> <p>A number of materials such as cyanamide, calcium cyanamide, cyanates, isocyanates, isonitrile, thiocyanates, ferricyanide and ferrocyanide, and cyanoacetates do not exhibit the same toxic effects as cyanides and nitriles.</p> <p>Probable lethal dose of thiocyanate (rhodanate), in man, is between 15 and 30 gm (ingested at one time). Several acute fatalities are recorded with death coming in 10 to 48 hours.</p> <p>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.</p>  |   |
| Skin Contact          | <p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p> <p>Skin contact with the material may be harmful; systemic effects may result following absorption.</p>  |   |
| Eye                   | <p>This material can cause eye irritation and damage in some persons.</p>   |   |
| Chronic               | <p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>There is sufficient evidence to suggest that this material directly causes cancer in humans.</p> <p>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence exists that this material directly causes reduced fertility</p> <p>Chronic minor exposure to hydrogen chloride (HCl) vapour or fume may cause discolouration or erosion of the teeth, bleeding of the nose and gums; and ulceration of the mucous membranes of the nose. Workers exposed to hydrochloric acid suffered from stomach inflammation and a number of cases of chronic bronchitis (airway inflammation) have also been reported. Repeated or prolonged exposure to dilute solutions of hydrogen chloride may cause skin inflammation.</p>  |   |
| DRM Buffer            | <b>TOXICITY</b><br>Not Available  | <b>IRRITATION</b><br>Not Available  |
| guanidine thiocyanate | <b>TOXICITY</b><br>Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup><br>Inhalation(Rat) LC50: >0.853 mg/l4h <sup>[1]</sup><br>Oral (Rat) LD50: 474.6 mg/kg <sup>[1]</sup>  | <b>IRRITATION</b><br>Skin: adverse effect observed (corrosive) <sup>[1]</sup> |
| <b>Legend:</b>        | 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   |   |

|            |  |
|------------|--|
| DRM Buffer | <p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>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> <p>Goitrogenic:</p> <p>Goitrogens are substances that suppress the function of the thyroid gland by interfering with iodine uptake, which can, as a result, cause an enlargement of the thyroid (a goitre).</p> <p>Goitrogens include:</p> <ul style="list-style-type: none"> <li>- Vitexin, a flavonoid, which inhibits thyroid peroxidase, contributing to goitre</li> <li>- Thiocyanate and perchlorate, which decrease iodide uptake by competitive inhibition and consequently increase release of TSH from the pituitary gland</li> <li>- Lithium, which inhibits thyroid hormone release</li> <li>- Certain foods, such as soy and millet (containing vitexins) and vegetables in the genus Brassica (which includes broccoli, Brussels sprouts, cabbage, cauliflower and horseradish).</li> <li>- Caffeine (found in coffee, tea, cola and chocolate), which acts on thyroid function as a suppressant.</li> </ul> <p>Thiocyanate is known to be an important part in the biosynthesis of hypothiocyanite by a lactoperoxidase. Thus the complete absence of thiocyanate or reduced thiocyanate in the human body, (e.g., cystic fibrosis) is damaging to the human host defense system</p> <p>Thiocyanate [SCN<sup>-</sup>] is a complex anion which is a potent inhibitor of iodide transport (the thyroid sodium-iodide symporter) Iodine is an essential component of thyroxine. Since thiocyanates will decrease iodide transport into the thyroid follicular cell, they will decrease the amount of thyroxine produced by the thyroid gland. As such, foodstuffs containing thiocyanate are best avoided by iodide deficient hypothyroid patients</p> <p>Thiocyanate is the detoxification product of cyanide and can easily be measured in body fluids. Consumption of naturally occurring goitrogens, certain environmental toxins and cigarette smoke can significantly increase SCN<sup>-</sup> concentrations to levels potentially capable of affecting the</p> |
|------------|--|



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|                       |  |
|-----------------------|--|
|                       | <p>thyroid gland. Goiter endemics were reported to develop when the critical urinary iodine/ SCN- ratio decreases below 3 microgram iodine per mg SCN-. Iodine supplementation completely reverses the goitrogenic influence of SCN-. SCN- is also generated from cigarette smoking as a detoxifying product of cyanide. During the past two decades many reports dealt with the possible effects of cigarette smoking on thyroid hormone synthesis, thyroid gland size and thyroid autoimmunity including infiltrative ophtalmopathy of Graves' disease.</p> <p>Thiocyanates are derived from the hydrolysis of glucosinolates — sulfur-containing compounds found in cruciferous vegetables. Brassica species such as cabbage, broccoli, cauliflower, rutabaga, mustard, Brussels sprouts, and turnip contain glucosinolates (previously called thioglucosides) which are hydrolyzed to form isothiocyanates, nitriles, and thiocyanates</p>   |
| GUANIDINE THIOCYANATE | <p>The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <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 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 eosinophiliia. 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> <p>The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.</p> <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> |

|                                   |   |                          |   |
|-----------------------------------|---|--------------------------|---|
| 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

## 11.2 Information on other hazards

## 11.2.1. Endocrine Disruption Properties

Not Available

## 11.2.2. Other Information

See Section 11.1

## SECTION 12 Ecological information

## 12.1. Toxicity

| DRM Buffer  | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|---|---------------|--------------------|-------------------------------|---------------|---------------|
|   | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| guanidine thiocyanate   | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|   | NOEC(ECx)     | 504h               | Crustacea                     | 1.25mg/l      | 2             |
|   | EC50          | 72h                | Algae or other aquatic plants | 130mg/l       | 2             |
|   | LC50          | 96h                | Fish                          | ~89.1mg/l     | 2             |
|   | EC50          | 48h                | Crustacea                     | 42.4mg/l      | 2             |
| <b>Legend:</b> 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 |               |                    |                               |               |               |

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Thiocyanates:

Terrestrial Fate: Soil - At near ambient temperatures (approximately 30 C.) it appears that sorption and volatilization are not significant processes for thiocyanate in soil, with thiocyanate losses due primarily to microbial degradation. Thiocyanate is not persistent in soils. Thiocyanate may undergo both aerobic and anaerobic microbial degradation; however, the degradation pathway has not been defined. Saturated soils treated with thiocyanate were found to emit carbonyl sulfide (COS). Microbial degradation is the primary mechanism for thiocyanate disappearance at or below 30 C., with carbonyl sulfide as a possible hydrolysis product. Loss of thiocyanate at higher temperatures (50-60 C.) did not appear to result from microbial degradation.

Aquatic Fate: Biodegradation is a significant transformation process for thiocyanates in natural waters. Thiocyanate is toxic to microorganisms at high concentrations; however, acclimated cultures have increased tolerance to this compound. At concentrations up to 1.42 g/L., thiocyanate is completely degraded within 4 days to ammonia and sulfate ion (SO<sub>4</sub>-2) by an acclimatized co-culture of two bacteria (Acinetobacter johnsonii and Pseudomonas diminuta).

**DO NOT discharge into sewer or waterways.**

## 12.2. Persistence and degradability

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

## 12.3. Bioaccumulative potential

Continued...

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

12.4. Mobility in soil

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

12.5. Results of PBT and vPvB assessment

|                         | P             | B             | T             |
|-------------------------|---------------|---------------|---------------|
| Relevant available data | Not Available | Not Available | Not Available |
| PBT                     | ✗             | ✗             | ✗             |
| vPvB                    | ✗             | ✗             | ✗             |
| PBT Criteria fulfilled? | No            |               |               |
| vPvB                    | No            |               |               |

12.6. Endocrine Disruption Properties

Not Available

12.7. Other adverse effects

Not Available

SECTION 13 Disposal considerations

13.1. 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> Otherwise: <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></ul> 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: <ul style="list-style-type: none"><li>Reduction</li><li>Reuse</li><li>Recycling</li><li>Disposal (if all else fails)</li></ul> 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. <ul style="list-style-type: none"><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> |
| Waste treatment options      | Not Available  |
| Sewage disposal options      | Not Available  |

SECTION 14 Transport information

Labels Required

|                  |    |
|------------------|----|
| Marine Pollutant | NO |
|------------------|----|

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

|                                    |                                |                |
|------------------------------------|--------------------------------|----------------|
| 14.1. UN number                    | Not Applicable                 |                |
| 14.2. UN proper shipping name      | Not Applicable                 |                |
| 14.3. Transport hazard class(es)   | Class                          | Not Applicable |
|                                    | Subrisk                        | Not Applicable |
| 14.4. Packing group                | Not Applicable                 |                |
| 14.5. Environmental hazard         | Not Applicable                 |                |
| 14.6. Special precautions for user | Hazard identification (Kemler) | Not Applicable |
|                                    | Classification code            | Not Applicable |

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|  |                         |                |
|--|-------------------------|----------------|
|  | Hazard Label            | Not Applicable |
|  | Special provisions      | Not Applicable |
|  | Limited quantity        | Not Applicable |
|  | Tunnel Restriction Code | Not Applicable |

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

|                                    |   |                |
|------------------------------------|---|----------------|
| 14.1. UN number                    | Not Applicable  |                |
| 14.2. UN proper shipping name      | Not Applicable  |                |
| 14.3. Transport hazard class(es)   | ICAO/IATA Class   | Not Applicable |
|                                    | ICAO / IATA Subrisk                                       | Not Applicable |
|                                    | ERG Code  | Not Applicable |
| 14.4. Packing group                | Not Applicable  |                |
| 14.5. Environmental hazard         | Not Applicable  |                |
| 14.6. Special precautions for user | Special provisions  | Not Applicable |
|                                    | Cargo Only Packing Instructions                           | Not Applicable |
|                                    | Cargo Only Maximum Qty / Pack                             | Not Applicable |
|                                    | Passenger and Cargo Packing Instructions                  | Not Applicable |
|                                    | Passenger and Cargo Maximum Qty / Pack                    | Not Applicable |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions | Not Applicable |
|                                    | Passenger and Cargo Limited Maximum Qty / Pack            | Not Applicable |

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

|                                    |                    |                |
|------------------------------------|--------------------|----------------|
| 14.1. UN number                    | Not Applicable     |                |
| 14.2. UN proper shipping name      | Not Applicable     |                |
| 14.3. Transport hazard class(es)   | IMDG Class         | Not Applicable |
|                                    | IMDG Subrisk       | Not Applicable |
| 14.4. Packing group                | Not Applicable     |                |
| 14.5. Environmental hazard         | Not Applicable     |                |
| 14.6. Special precautions for user | EMS Number         | Not Applicable |
|                                    | Special provisions | Not Applicable |
|                                    | Limited Quantities | Not Applicable |

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

|                                    |                     |                |
|------------------------------------|---------------------|----------------|
| 14.1. UN number                    | Not Applicable      |                |
| 14.2. UN proper shipping name      | Not Applicable      |                |
| 14.3. Transport hazard class(es)   | Not Applicable      | Not Applicable |
| 14.4. Packing group                | Not Applicable      |                |
| 14.5. Environmental hazard         | Not Applicable      |                |
| 14.6. Special precautions for user | Classification code | Not Applicable |
|                                    | Special provisions  | Not Applicable |
|                                    | Limited quantity    | Not Applicable |
|                                    | Equipment required  | Not Applicable |
|                                    | Fire cones number   | Not Applicable |

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

Not Applicable

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

| Product name          | Group         |
|-----------------------|---------------|
| guanidine thiocyanate | Not Available |
| anionic detergent     | Not Available |

**14.9. Transport in bulk in accordance with the ICG Code**

| Product name | Ship Type |
|--------------|-----------|
|--------------|-----------|

Continued...

| Product name          | Ship Type     |
|-----------------------|---------------|
| guanidine thiocyanate | Not Available |
| anionic detergent     | Not Available |

SECTION 15 Regulatory information

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

guanidine thiocyanate is found on the following regulatory lists

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

European Union (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures - Annex VI

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

| Seveso Category | Not Available |
|-----------------|---------------|
|-----------------|---------------|

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

ECHA SUMMARY

| Ingredient            | CAS number | Index No     | ECHA Dossier  |
|-----------------------|------------|--------------|---------------|
| guanidine thiocyanate | 593-84-0   | 615-004-00-3 | Not Available |

| Harmonisation (C&L Inventory) | Hazard Class and Category Code(s)  | Pictograms Signal Word Code(s) | Hazard Statement Code(s)                       |
|-------------------------------|--|--------------------------------|--|
| 1                             | Acute Tox. 4; Acute Tox. 4; Acute Tox. 4; Aquatic Chronic 3  | GHS07; Wng                     | H302; H312; H332; H412                         |
| 2                             | Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Chronic 3; Acute Tox. 3; Acute Tox. 3; Aquatic Acute 3; STOT SE 3 | GHS05; Dgr; GHS06; GHS08       | H312; H314; H412; H301; H331; H402; H318; H335 |

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory Status

| National Inventory                              | Status  |
|---|---|
| Australia - AILC / Australia Non-Industrial Use | Yes   |
| Canada - DSL                                    | Yes   |
| Canada - NDSL                                   | No (guanidine thiocyanate; anionic detergent)   |
| China - IECSC                                   | Yes   |
| Europe - EINEC / ELINCS / NLP                   | Yes   |
| Japan - ENCS                                    | No (guanidine thiocyanate)  |
| Korea - KECI                                    | No (guanidine thiocyanate)  |
| New Zealand - NZIoC                             | Yes   |
| Philippines - PICCS                             | Yes   |
| USA - TSCA                                      | Yes   |
| Taiwan - TCSI                                   | Yes   |
| Mexico - INSQ                                   | No (guanidine thiocyanate)  |
| Vietnam - NCI                                   | Yes   |
| Russia - FBEPH                                  | Yes   |
| 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 registration. |

SECTION 16 Other information

| Revision Date | 28/12/2022 |
|---------------|------------|
| Initial Date  | 16/01/2021 |

Full text Risk and Hazard codes

|      |  |
|------|--|
| H301 | Toxic if swallowed.                      |
| H312 | Harmful in contact with skin.            |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage.               |
| H331 | Toxic if inhaled.                        |
| H332 | Harmful if inhaled.                      |
| H335 | May cause respiratory irritation.        |
| H402 | Harmful to aquatic life.                 |

## DRM Buffer

## SDS Version Summary

| Version | Date of Update | Sections Updated         |
|---------|----------------|--------------------------|
| 1.5     | 27/12/2022     | Physical Properties, Use |

## Other information

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

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