

# **Novachem Pty Ltd**

Version No: 1.2

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 21/10/2021 Print Date: 21/10/2021 S.GHS.AUS.EN

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

### **Product Identifier**

| Product name                  | CHRYSENE (D12, 98%)                                |
|-------------------------------|----------------------------------------------------|
| Chemical Name                 | chrysene-D12                                       |
| Synonyms                      | DLM-261                                            |
| Proper shipping name          | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| Other means of identification | DLM-261-1                                          |
| CAS number                    | 1719-03-5*                                         |

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

| Relevant identified uses | For professional use only. |
|--------------------------|----------------------------|
|--------------------------|----------------------------|

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

| Registered company name | Novachem Pty Ltd                                          | Novachem Pty Ltd                                          |
|-------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Address                 | 25 Crissane Road, Heidelberg West Victoria 3081 Australia | 25 Crissane Road, Heidelberg West Victoria 3081 Australia |
| Telephone               | +61384151255                                              | +61384151255                                              |
| Fax                     | +61386250088                                              | +61386250088                                              |
| Website                 | www.novachem.com.au                                       | www.novachem.com.au                                       |
| Email                   | novachem@novachem.com.au                                  | novachem@novachem.com.au                                  |

### Emergency telephone number

| Association / Organisation        | Victorian Poisons Information Centre | Victorian Poisons Information Centre |
|-----------------------------------|--------------------------------------|--------------------------------------|
| Emergency telephone numbers       | 13 11 26                             | 13 11 26                             |
| Other emergency telephone numbers | Not Available                        | Not Available                        |

### **SECTION 2 Hazards identification**

### Classification of the substance or mixture

### HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

### ChemWatch Hazard Ratings

|              | Min | Max |                         |
|--------------|-----|-----|-------------------------|
| Flammability | 0   |     |                         |
| Toxicity     | 1   |     | 0 = Minimum             |
| Body Contact | 1 📃 |     | 1 = Low                 |
| Reactivity   | 0   |     | 2 = Moderate            |
| Chronic      | 4   |     | 3 = High<br>4 = Extreme |

| Poisons Schedule              | Not Applicable                                                                                                                                                                                 |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification <sup>[1]</sup> | Hazardous to the Aquatic Environment Acute Hazard Category 1, Carcinogenicity Category 1A, Germ Cell Mutagenicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 1 |
| Legend:                       | 1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                                                           |

Label elements

| Hazard pictogram          | s)                                             |                                                                                             |
|---------------------------|------------------------------------------------|---------------------------------------------------------------------------------------------|
| Signal wo                 | rd Danger                                      |                                                                                             |
| azard statement(s)        |                                                |                                                                                             |
| H3                        | 50 May cause cancer.                           |                                                                                             |
| H3                        | 41 Suspected of causing genetic defects.       |                                                                                             |
| H4                        | 10 Very toxic to aquatic life with long lastin | ng effects.                                                                                 |
| ecautionary statement(s)  | Prevention                                     |                                                                                             |
| P2                        | 01 Obtain special instructions before use.     |                                                                                             |
| P2                        | 30 Wear protective gloves and protective       | clothing.                                                                                   |
| P2                        | 73 Avoid release to the environment.           |                                                                                             |
| recautionary statement(s) | Response                                       |                                                                                             |
| P308+P3                   | I3 IF exposed or concerned: Get medical        | advice/ attention.                                                                          |
| P3                        | 31 Collect spillage.                           |                                                                                             |
| ecautionary statement(s)  | Storage                                        |                                                                                             |
| P4                        | 05 Store locked up.                            |                                                                                             |
| ecautionary statement(s)  | Disposal                                       |                                                                                             |
| P5                        | D1 Dispose of contents/container to author     | prised hazardous or special waste collection point in accordance with any local regulation. |
| ECTION 3 Composition      | / information on ingredients                   |                                                                                             |
| ubstances                 |                                                |                                                                                             |
| Ibstances<br>CAS No       | %[weight]                                      | Name                                                                                        |

### 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 contact occurs: <ul> <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> <li>If dust is inhaled, remove from contaminated area.</li> <li>Encourage patient to blow nose to ensure clear passage of breathing.</li> <li>If irritation or discomfort persists seek medical attention.</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

- Foam.
- Dry chemical powder.
  BCF (where regulations permit).

Carbon dioxide.

### 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Fire/Explosion Hazard   | <ul> <li>Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.</li> <li>Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</li> <li>Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.</li> <li>Combustion products include: carbon monoxide (CO) carbon dioxide (CO)</li> <li>carbon dioxide (CO2)</li> <li>other pyrolysis products typical of burning organic material.</li> </ul> |
| HAZCHEM                 | 2Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### **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

| Minor Spills | <ul> <li>Clean up waste regularly and abnormal spills immediately.</li> <li>Avoid breathing dust and contact with skin and eyes.</li> <li>Wear protective clothing, gloves, safety glasses and dust respirator.</li> <li>Use dry clean up procedures and avoid generating dust.</li> <li>Environmental hazard - contain spillage.</li> </ul>            |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Major Spills | <ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Prevent, by all means available, spillage from entering drains or water courses.</li> <li>Environmental hazard - contain spillage.</li> </ul> |

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

### **SECTION 7 Handling and storage**

| Precautions for safe handling |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling                 | <ul> <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>Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions)</li> <li>Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.</li> <li>Establish good housekeeping practices.</li> <li>Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.</li> </ul> |
| Other information             | <ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry area protected from environmental extremes.</li> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

### Conditions for safe storage, including any incompatibilities

| Suitable container      | <ul> <li>Glass container is suitable for laboratory quantities</li> <li>Polyethylene or polypropylene container.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul> |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage incompatibility | Avoid reaction with oxidising agents                                                                                                                                                                |

| Control parameters                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Occupational Exposure Limits (C     | DEL)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| INGREDIENT DATA                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Not Available                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Emergency Limits                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ingredient                          | TEEL-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | TEEL-2                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                               | TEEL-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CHRYSENE (D12, 98%)                 | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Not Available                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                               | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ingredient                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       | Revised IDI H                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Chrysene-D12                        | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                       | Not Available                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Occupational Exposure Banding       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ingredient                          | Occupational Exposure Band Rating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                       | Occupational Expos                                                                                                                                                                                                                                                                                                            | ure Band Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Chrysene-D12                        | D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                       | > 0.01 to ≤ 0.1 mg/m <sup>3</sup>                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Notes:                              | Occupational exposure banding is a process of<br>adverse health outcomes associated with expos<br>range of exposure concentrations that are expe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | assigning chemicals into a<br>sure. The output of this pro-<br>ected to protect worker hea                                                                                                                                                                                                                                                                            | specific categories or bar<br>ocess is an occupational<br>alth.                                                                                                                                                                                                                                                               | nds based on a chemical's potency and the<br>exposure band (OEB), which corresponds to a                                                                                                                                                                                                                                                                                                                                                                                                       |
| Exposure controls                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Appropriate engineering<br>controls | Engineering controls are used to remove a hazz<br>be highly effective in protecting workers and will<br>The basic types of engineering controls are:<br>Process controls which involve changing the wa<br>Enclosure and/or isolation of emission source w<br>"adds" and "removes" air in the work environme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ard or place a barrier betw<br>I typically be independent<br>ay a job activity or process<br><i>r</i> hich keeps a selected haz<br>ent.                                                                                                                                                                                                                               | een the worker and the h<br>of worker interactions to<br>s is done to reduce the ris<br>zard "physically" away fro                                                                                                                                                                                                            | nazard. Well-designed engineering controls can<br>provide this high level of protection.<br>k.<br>m the worker and ventilation that strategically                                                                                                                                                                                                                                                                                                                                              |
| Personal protection                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Eye and face protection             | <ul> <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.</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.<br>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.<br>Personal hygiene is a key element of effective hand care.<br>Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Body protection                     | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Other protection                    | <ul> <li>Employees working with confirmed human (smocks, coveralls, or long-sleeved shirt an national equivalent]</li> <li>Employees engaged in handling operations respirators with filters for dusts, mists and ft be substituted. [AS/NZS 1715 or national et et al. [AS/NZS 1715 or national et al. [AS/NZ 1715 or national et al. [AS/NZ 1715 or national et al. [AS/NZ 1715 or national et</li></ul> | carcinogens should be pro<br>d pants), shoe covers and<br>; involving carcinogens shu<br>umes, or air purifying cani-<br>quivalent]<br>ountains, supplied with po<br>s likely.<br>onfirmed human carcinog<br>and at the last exit of the d<br>iation or disposal. The cor<br>tion activities, authorized e<br>g gloves, boots and continu-<br>employee should undergo | ovided with, and be required<br>d gloves prior to entering<br>ould be provided with, and<br>sters or cartridges. A resp<br>table water, should be lo-<br>ens, employees should be<br>lay, to place used clothing<br>tents of such impervious<br>employees entering the a<br>uous-air supplied hood.<br>decontamination and be | red to wear, clean, full body protective clothing<br>the regulated area. [AS/NZS ISO 6529:2006 or<br>d required to wear and use half-face filter-type<br>pirator affording higher levels of protection may<br>cated near, within sight of, and on the same<br>e required to remove and leave protective<br>g and equipment in impervious containers at<br>containers must be identified with suitable<br>rea should be provided with and required to<br>required to shower upon removal of the |

### **Respiratory protection**

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
|                                    |                      |                      |                        |

| up to 10 x ES  | P1<br>Air-line* | -          | PAPR-P1<br>- |
|----------------|-----------------|------------|--------------|
| up to 50 x ES  | Air-line**      | P2         | PAPR-P2      |
| up to 100 x ES | -               | P3         | -            |
|                |                 | Air-line*  | -            |
| 100+ x ES      | -               | Air-line** | PAPR-P3      |

\* - Negative pressure demand \*\* - Continuous flow

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

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection
program.

• Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

• Use approved positive flow mask if significant quantities of dust becomes airborne.

Try to avoid creating dust conditions.

# **SECTION 9** Physical and chemical properties

# Information on basic physical and chemical properties

| Appearance                                      | solid white to pale yellow flakes |                                            |                |
|-------------------------------------------------|-----------------------------------|--------------------------------------------|----------------|
| Dhysical state                                  | Colid                             | Polotivo dopoitu (Wotor - 1)               |                |
| Fliysical state                                 | Solid                             | Relative defisity (Water = 1)              | Not Available  |
| Odour                                           | Not Available                     | Partition coefficient n-octanol<br>/ water | Not Available  |
| Odour threshold                                 | Not Available                     | Auto-ignition temperature (°C)             | Not Available  |
| pH (as supplied)                                | Not Available                     | Decomposition temperature                  | Not Available  |
| Melting point / freezing point<br>(°C)          | 252 - 254                         | Viscosity (cSt)                            | Not Available  |
| Initial boiling point and boiling<br>range (°C) | 448                               | Molecular weight (g/mol)                   | 240.36         |
| 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 or<br>mN/m)        | Not Applicable |
| Lower Explosive Limit (%)                       | Not Available                     | Volatile Component (%vol)                  | Not Available  |
| Vapour pressure (kPa)                           | Not Available                     | Gas group                                  | Not Available  |
| Solubility in water                             | Immiscible                        | pH as a solution (%)                       | 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 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.                                                                                                                                                                               |               |  |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--|
| 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 be a skin irritant (as classified by EC Directives using animal models). Abrasive damage however, may result from prolonged exposures.<br>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin<br>prior to the use of the material and ensure that any external damage is suitably protected. |               |  |
| Eye                 | Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.                                                                                                                                                                                                                                                                                                                                                                      |               |  |
| Chronic             | Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. There is sufficient evidence to suggest that this material directly causes cancer in humans.                                                                                                                                                                                                                                                                                                                                                                                                        |               |  |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |  |
| CHRYSENE (D12, 98%) | ΤΟΧΙΟΙΤΥ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | IRRITATION    |  |
|                     | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not Available |  |
| Chrysene-D12        | ΤΟΧΙΟΙΤΥ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | IRRITATION    |  |
|                     | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Not Available |  |
| 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                                                                                                                                                                                                                                                                                                                                                                                                          |               |  |

| CHRYSENE (D12, 98%)                  | Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. |                          |   |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|
|                                      |                                                                                                                                                                            |                          |   |
| Acute Toxicity                       | ×                                                                                                                                                                          | Carcinogenicity          | × |
| Skin Irritation/Corrosion            | ×                                                                                                                                                                          | Reproductivity           | × |
| Serious Eye Damage/Irritation        | ×                                                                                                                                                                          | STOT - Single Exposure   | × |
| Respiratory or Skin<br>sensitisation | ×                                                                                                                                                                          | STOT - Repeated Exposure | × |
| Mutagenicity                         | ×                                                                                                                                                                          | Aspiration Hazard        | × |

Legend:

🗙 – Data either not available or does not fill the criteria for classification

Data chief not available of does not milling enternal for classification
 Data available to make classification

### **SECTION 12 Ecological information**

#### Toxicity Endpoint Test Duration (hr) Species Value Source CHRYSENE (D12, 98%) Not Not Not Not Available Not Available Available Available Available Test Duration (hr) Species Endpoint Value Source Chrvsene-D12 Not Not Not Not Available Not Available Available Available Available Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite Legend: V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment

Very toxic 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.

Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

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

For Polycyclic Aromatic Hydrocarbons (PAH's):

Environmental Fate: A general rule for biodegradation of PAHs is that parent compounds tend to degrade faster than alkylated analogs. Less is known about the biodegradability of resins and asphaltenes, but the current knowledge suggests these are not very biodegradable and will persist in the environment for a long time. The more hydrophobic a compound, the greater the partitioning to non-aqueous phases.

Atmospheric Fate: PAHs travel through the atmosphere as a gas or attached to dust particles.

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

### Persistence and degradability

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

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| 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 disposal | <ul> <li>Containers may still present a chemical hazard/ danger when empty.</li> <li>Return to supplier for reuse/ recycling if possible.</li> <li>Otherwise:</li> <li>If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</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> </ul> |

### **SECTION 14 Transport information**

### Labels Required

| Marine Pollutant |    |
|------------------|----|
| HAZCHEM          | 2Z |

### Land transport (ADG)

| UN number                    | 3077                                                       |
|------------------------------|------------------------------------------------------------|
| UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.         |
| Transport hazard class(es)   | Class     9       Subrisk     Not Applicable               |
| Packing group                | Ш                                                          |
| Environmental hazard         | Environmentally hazardous                                  |
| Special precautions for user | Special provisions274 331 335 375 AU01Limited quantity5 kg |

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

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).
Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

Air transport (ICAO-IATA / DGR)

| UN number                    | 3077                                                              |                                        |                                    |
|------------------------------|-------------------------------------------------------------------|----------------------------------------|------------------------------------|
| UN proper shipping name      | Environmentally hazardous substance, solid, n.o.s. *              |                                        |                                    |
| Transport hazard class(es)   | ICAO/IATA Class<br>ICAO / IATA Subrisk<br>ERG Code                | 9<br>Not Applicable<br>9L              |                                    |
| Packing group                | Ш                                                                 |                                        |                                    |
| Environmental hazard         | Environmentally hazardous                                         |                                        |                                    |
| Special precautions for user | Special provisions<br>Cargo Only Packing In<br>Cargo Only Maximum | A9<br>structions 956<br>Qty / Pack 400 | 7 A158 A179 A197 A215<br>3<br>0 kg |

| Passenger and Cargo Packing Instructions                  | 956     |
|-----------------------------------------------------------|---------|
| Passenger and Cargo Maximum Qty / Pack                    | 400 kg  |
| Passenger and Cargo Limited Quantity Packing Instructions | Y956    |
| Passenger and Cargo Limited Maximum Qty / Pack            | 30 kg G |

### Sea transport (IMDG-Code / GGVSee)

| UN number                    | 3077                                                 |                                                                   |
|------------------------------|------------------------------------------------------|-------------------------------------------------------------------|
| UN proper shipping name      | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.   |                                                                   |
| Transport hazard class(es)   | IMDG Class<br>IMDG Subrisk                           | 9<br>Not Applicable                                               |
| Packing group                | ш                                                    |                                                                   |
| Environmental hazard         | Marine Pollutant                                     |                                                                   |
| Special precautions for user | EMS Number<br>Special provision<br>Limited Quantitie | F-A, S-F         s       274 335 966 967 969         s       5 kg |

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

| Product name             | Pollution Category | Ship Type |
|--------------------------|--------------------|-----------|
| Poly(2+)cyclic aromatics | X                  | 1         |

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

| Product name | Group         |
|--------------|---------------|
| Chrysene-D12 | Not Available |
|              |               |

### Transport in bulk in accordance with the ICG Code

| Product name | Ship Type     |
|--------------|---------------|
| Chrysene-D12 | Not Available |

# **SECTION 15 Regulatory information**

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

# Chrysene-D12 is found on the following regulatory lists

Not Applicable

### **National Inventory Status**

| National Inventory                                 | Status                                                                                                                                                                                            |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia<br>Non-Industrial Use | No (Chrysene-D12)                                                                                                                                                                                 |
| Canada - DSL                                       | No (Chrysene-D12)                                                                                                                                                                                 |
| Canada - NDSL                                      | No (Chrysene-D12)                                                                                                                                                                                 |
| China - IECSC                                      | No (Chrysene-D12)                                                                                                                                                                                 |
| Europe - EINEC / ELINCS / NLP                      | No (Chrysene-D12)                                                                                                                                                                                 |
| Japan - ENCS                                       | No (Chrysene-D12)                                                                                                                                                                                 |
| Korea - KECI                                       | No (Chrysene-D12)                                                                                                                                                                                 |
| New Zealand - NZIoC                                | No (Chrysene-D12)                                                                                                                                                                                 |
| Philippines - PICCS                                | No (Chrysene-D12)                                                                                                                                                                                 |
| USA - TSCA                                         | No (Chrysene-D12)                                                                                                                                                                                 |
| Taiwan - TCSI                                      | Yes                                                                                                                                                                                               |
| Mexico - INSQ                                      | No (Chrysene-D12)                                                                                                                                                                                 |
| Vietnam - NCI                                      | No (Chrysene-D12)                                                                                                                                                                                 |
| Russia - FBEPH                                     | No (Chrysene-D12)                                                                                                                                                                                 |
| 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 | 21/10/2021 |
|---------------|------------|
| Initial Date  | 07/12/2020 |

### **SDS Version Summary**

Version

| Version | Date of Update | Sections Updated |
|---------|----------------|------------------|
| 0.2     | 21/10/2021     | Classification   |

#### 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.

### **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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