1. Identification of the substance/mixture and of the company/undertaking

1.1. Product Details

Product Name : Rhenium disulfide powder  
Synonyms: : Rhenium sulphide, Bis(sulfanylidene)rhenium  
Chemical Name : Rhenium disulfide  
Chemical Formula : ReS$_2$  
CAS No. : 12038-63-0  
Product Code : M2139C  
CAS No. : 12038-63-0  
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

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

Identified uses : Laboratory chemicals

1.3. Supplier details

Supplied by : Ossila Limited  
Solpro Business Park  
Windsor Street, Sheffield  
S4 7WB, UK  
Telephone : 0114 2999 180  
Email address : info@ossila.com

2. Hazards identification

2.1. Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3. Other hazards

None.

3. Composition/Information on ingredients

3.1. Substances

No components need to be disclosed according to the applicable regulations.

4. First aid measures

4.1. Description of first aid measures

Inhalation : Remove person to fresh air. If not breathing, give person artificial respiration.
Skin contact Wash with soap and water.
Eye contact Flush with copious amounts of water.
Ingestion Rinse out mouth with water.

4.2. Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in section 11.

4.3. Indication of any immediate medical attention and special treatment needed
No data available.

5. Fire fighting

5.1. Extinguishing media
Suitable extinguishing media: As appropriate for surrounding fire.

5.2. Special hazards arising from the substance of mixture
May decompose in a fire, giving off toxic and irritant vapours.

5.3. Advice for firefighters
Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment (section 8). Avoid dust formation. Ensure room is well ventilated. Remove all sources of ignition.

6.2. Environmental precautions
Do not let product enter drains.

6.3. Containment and cleaning
Contain and clean up spill if safe to do so using an electrically protected vacuum cleaner or by wet-brushing. Dispose of dry waste in closed container for proper disposal according to local regulations.

7. Handling and storage

7.1. Precautions for safe handling
Avoid formation of dust and aerosols. Provide exhaust ventilation in places where dust is formed.

7.2. Conditions for safe storage, including any incompatibilities
Store in a cool, dry and well-ventilated place inside of a tightly sealed container. Reseal containers that have been opened and keep upright to prevent leakage.
Storage temperature Ambient
Storage life Stable under normal conditions.

7.3. Specific end uses
Use in laboratories.
8. Exposure controls / Personal protection

8.1. Control parameters

Occupational Exposure Limits
Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Engineering measures
Handle in accordance with good industrial engineering/laboratory practices for hygiene and safety. Ensure eyewash stations and safety showers are close to the laboratory workstation. Ensure good general ventilation is present when handling the product.

Personal protective equipment

Eye Protection
Wear safety glasses with side-shields conforming to appropriate government standards such as NOISH (US) or EN166 (EU).

Skin Protection
Wear protective clothing and gloves. Use gloves that satisfy the specifications of your national standards (e.g. EN 374). Wash hands after handling. Wash contaminated clothing after use.

Respirators:
Where protection from nuisance dusts is needed, use type N95 (US) or type P1 (EN 143) dust masks or those approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental Exposure Controls
Avoid release to the environment.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black powder</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other safety information
No data available.

10. Stability and reactivity

10.1 Reactivity
No data available.
10.2. Chemical stability
Stable under normal temperatures and pressures under recommended storage conditions.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
No data available.

10.5. Incompatible materials
Strong oxidising agents.

10.6. Hazardous decomposition products
No known hazardous decomposition products.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity
No data available.
Skin corrosion/irritation
No data available.
Serious eye damage/eye irritation
No data available.
Respiratory or skin sensitization
No data available.
Germ cell mutagenicity
No data available.
Carcinogenicity
No data available.
Reproductive toxicity
No data available.
Specific target organ toxicity - single exposure
No data available.
Specific target organ toxicity - repeated exposure
No data available.
Aspiration hazard
No data available.
Routes of exposure
Eye contact, ingestion, inhalation, skin contact.
Signs and Symptoms of Exposure
No data available.

Other information
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

12.1. Toxicity
No data available.

12.2. Persistence and degradability
No data available.
12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6. Other adverse effects
No data available.

13. Disposal

13.1. Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations and directives on waste and hazardous waste. Offer surplus material to a licensed professional waste disposal professional.

Contaminated packaging
Dispose of as unused product.

14. Transport
Non-hazardous for road, air and sea transport.

IATA: Not regulated as a hazardous material.
IMO: Not regulated as a hazardous material.
RID/ADR: Not regulated as a hazardous material.

15. Regulatory information
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006, the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
European Regulations - Authorisations and/or Restrictions On Use

15.2 Chemical safety assessment
No chemical safety report/assessment was carried out for this product.

16. Other information

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