

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 9/5/2002 Revision date: 1/25/2019 Supersedes: 7/14/2011 Version: 2.1

| | ince/mixture and of the company/undertaking |
|---|--|
| 1.1. Product identifier Product form | : Substance |
| Substance name | : N-(1-Naphthyl)ethylenediamine dihydrochloride |
| EC-No. | : 215-981-2 |
| | |
| CAS-No. | : 1465-25-4 |
| Product code | : 33355053 |
| Formula | : C12H14N2.2HCl |
| 1.2. Relevant identified uses of the substan | ce or mixture and uses advised against |
| 1.2.1. Relevant identified uses | |
| Industrial/Professional use spec | : For professional use only Industrial Laboratory chemicals |
| 1.2.2. Uses advised against No additional information available | |
| 1.3. Details of the supplier of the safety data | a sheet |
| Scafell Organics | |
| Molekula Ltd Lingfield Way | |
| Darlington - Éngland | |
| T +44 (0) 1949 823777 / +44 (0) 7590 545705 | |
| info@molekula.com / kbowen@molekula.com - www | v.molekula.com |
| 1.4. Emergency telephone number | |
| Emergency number : | +44 (0) 7590 545705 |
| SECTION 2: Hazards identification | |
| 2.1. Classification of the substance or mixtu | ure |
| Classification according to Regulation (EC) No. 1 | 272/2008 [CLP] |
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| Specific target organ toxicity — Single exposure, Ca | tegory 3. H335 |
| Respiratory tract irritation | |
| Full text of H statements : see section 16 | |
| Adverse physicochemical, human health and en | vironmental effects |
| No additional information available | |
| 2.2. Label elements | |
| | 2009 [C] E1 |
| Labelling according to Regulation (EC) No. 1272/ Hazard pictograms (CLP) | |
| | |
| | |
| | • |
| | \mathbf{V} |
| | GHS07 |
| Signal word (CLP) | : Warning |
| Hazard statements (CLP) | : H315 - Causes skin irritation. |
| | H319 - Causes serious eye irritation. |
| Precautionary statements (CLP) | H335 - May cause respiratory irritation. : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. |
| Frecautionary statements (CLF) | P280 - Wear protective gloves/protective clothing/eye protection/face protection. |
| | P302+P352 - IF ON SKIN: Wash with plenty of water. |
| | P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| | P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove |
| | contact lenses, if present and easy to do. Continue rinsing. P308+P311 - IF exposed or concerned: Call a POISON CENTER or doctor. |
| 2.3. Other hazards | |
| This substance/mixture does not meet the PBT criter | |

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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| SECTION 3: Composition/information on ingredients | | |
|---|---|--|
| | | |
| Product identifier | % | |
| (CAS-No.) 1465-25-4 (EC-No.) 215-981-2 | 100 | |
| | Product identifier (CAS-No.) 1465-25-4 | |

Full text of H-statements: see section 16

3.2. Mixtures Not applicable

| SECTION 4: First aid measures | |
|---|---|
| 4.1. Description of first aid measures | |
| First-aid measures general | : Never give anything by mouth to an unconscious person. If possible show this sheet, if not available show packaging or label. Do not leave affected person unattended. |
| First-aid measures after inhalation | : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. If experiencing respiratory symptoms: Get medical advice/attention. |
| First-aid measures after skin contact | : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Do not remove clothing if it sticks to the skin. If skin irritation occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention. |
| 4.2. Most important symptoms and effects, b | oth acute and delayed |
| Symptoms/effects after inhalation | : May cause respiratory irritation. Inhalation may cause irritation (cough, short breathing, difficulty in breathing). |
| Symptoms/effects after skin contact | : irritation (itching, redness, blistering). |
| Symptoms/effects after eye contact | : Causes serious eye irritation. redness, itching, tears. More severe symptoms are also possible. |
| Symptoms/effects after ingestion | : Ingestion may cause nausea and vomiting. |
| 4.3. Indication of any immediate medical atte | ntion and special treatment needed |
| Treat symptomatically. | |

SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand. Unsuitable extinguishing media : Do not use a heavy water stream. 5.2. Special hazards arising from the substance or mixture Hazardous decomposition products in case of fire : Carbon oxides (CO, CO2). hydrogen chloride. Nitrogen oxides. 5.3. Advice for firefighters Precautionary measures fire : Exposure to fire/heat: seal off low-lying areas. Keep container tightly closed and away from heat, sparks and flame. **Firefighting instructions** : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. Use extinguishing agent suitable for surrounding fire. : Do not enter fire area without proper protective equipment, including respiratory protection. Protection during firefighting Other information : Warn all persons of toxic hazard.

| Emergency procedures | : Ventilate area. Stop leak if safe to do so. | |
|--|--|----------------|
| Protective equipment | : Equip cleanup crew with proper protection. Use self-contained breathing app chemically protective clothing. | paratus and |
| 6.1.2. For emergency responders | | |
| Measures in case of dust release | : Keep upwind. Ventilate the area thoroughly, especially low lying areas (base workpits etc). | ements, |
| | access to unauthorized personnel. Avoid contact with skin, eyes and clothing breathe dust. Do not touch or walk on the spilled product. | • |
| Emergency procedures | : Evacuate unnecessary personnel. Mark out the contaminated area with sign | is and provent |
| Protective equipment | : Wear recommended personal protective equipment. | |
| 6.1.1. For non-emergency personnel | | |
| General measures | sources of ignition. Avoid dust formation. | . Eiminale ai |
| General measures | : Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. | Eliminata all |
| 6.1. Personal precautions, protective ed | | |
| SECTION 6: Accidental release mea | asures | |

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6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

| SECTION 7: Handling and storage | |
|---|---|
| 7.1. Precautions for safe handling | |
| Precautions for safe handling | : Provide local exhaust or general room ventilation. Avoid creating or spreading dust. |
| Hygiene measures | : Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Always wash hands after handling the product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. |
| 7.2. Conditions for safe storage, including a | ny incompatibilities |
| Technical measures | : Handle and store contents under inert gas. Protect from moisture. |
| Storage conditions | : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container tightly closed. |
| Incompatible products | : Acids. Acid chlorides. Acid anhydrides. Oxidising agents. |
| Incompatible materials | : Light sensitive. Direct sunlight. Sources of ignition. Heat sources. Material is hygroscopic. Moisture. Water, humidity. |
| Information on mixed storage | : Do not store near oxidizing agents or acidic material. |
| Storage area | : Store in dry protected location to prevent any moisture contact. Store at ambient temperature. |
| 7.3. Specific end use(s) | |

No additional information available

| SECTION 8: Exposure controls/personal protection |
|--|
| 8.1. Control parameters |
| No additional information available |
| 8.2. Exposure controls |

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety procedures. Provide local exhaust or general room ventilation.

Personal protective equipment:

Wear recommended personal protective equipment. Avoid all unnecessary exposure.

| The protective gloves | s to be used mu | ist comply w | ith the specifications of | the regulation 2016/425 | and the result | tant standard | I EN 374 |
|--|-----------------|--------------|--|---|----------------|---------------|--------------------|
| Туре | Material | | Permeation | Thickness (mm) | Penetratio | on | Standard |
| | Nitrile rubb | er (NBR) | 6 (> 480 minutes) | 0.11mm | | | EN 374 |
| - | | | | | | | |
| Eye protection: | | | | | | | |
| Emergency eye was | | | ble in the immediate vio Chemical goggles or sa | inity of any potential ex fety glasses | posure. Use ey | ve protection | according to EN 16 |
| Emergency eye was designed to protect a | | | | | posure. Use ey | ve protection | according to EN 16 |
| | | and dusts. | | fety glasses | posure. Use ey | - | according to EN 16 |

clothing readily available for emergency use

| Туре | Standard |
|---|--------------|
| Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product | EN ISO 13982 |

Respiratory protection:

Self contained breathing apparatus, in case of emergency. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

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| Device | Filter type | Condition | Standard |
|--|------------------|-----------------|----------|
| Respiratory protective device with a particle filter | Туре Р1, Туре Р2 | Dust protection | EN 143 |

Other information:

Do not eat, drink or smoke during use.

| SECTION 9: Physical and chemical p | |
|--|--|
| 9.1. Information on basic physical and ch | |
| Physical state | : Solid |
| Molecular mass | : 259.17 g/mol |
| Colour | : Off-white. |
| Odour | : characteristic. |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : 188 - 198 |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : soluble in water. Ethanol. Alcohols. diluted hydrochloric acid. Acetone. |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |
| 9.2. Other information | |
| No additional information available | |

No additional information available

| SECTION 10: Stability and reactivity |
|--|
| 10.1. Reactivity |
| The product is non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability |
| Stable under recommended handling and storage conditions (see section 7). |
| 10.3. Possibility of hazardous reactions |
| No dangerous reactions known under normal conditions of use. |
| 10.4. Conditions to avoid |
| Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. Material is hygroscopic. |
| Protect from moisture. Water, humidity. |
| 10.5. Incompatible materials |

Acids. Acid anhydrides. Acid chlorides. Oxidising agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Carbon oxides (CO, CO2). hydrogen chloride. Nitrogen oxides.

| SECTION 11: Toxicological information | |
|--|----------------------------------|
| 11.1. Information on toxicological effects | |
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |
| Skin corrosion/irritation | : Causes skin irritation. |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Not classified |

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| | o () | |
|---|---|--|
| Additional information | : Based on available data, the classification criteria are not met | |
| Germ cell mutagenicity | : Not classified | |
| Additional information | : Based on available data, the classification criteria are not met | |
| Carcinogenicity | : Not classified | |
| Additional information | : Based on available data, the classification criteria are not met | |
| Reproductive toxicity | : Not classified | |
| Additional information | : Based on available data, the classification criteria are not met | |
| STOT-single exposure | : May cause respiratory irritation. | |
| STOT-repeated exposure | : Not classified | |
| Additional information | : Based on available data, the classification criteria are not met | |
| Aspiration hazard | : Not classified | |
| Additional information | : Based on available data, the classification criteria are not met | |
| Potential adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. | |
| | | |

| SECTION 12: Ecological information | | | | |
|--|-----------------------------------|--|--|--|
| 12.1. Toxicity | | | | |
| Acute aquatic toxicity : | Not classified | | | |
| Chronic aquatic toxicity : | Not classified | | | |
| 12.2. Persistence and degradability | | | | |
| N-(1-Naphthyl)ethylenediamine dihydrochloride (1465-25-4) | | | | |
| Persistence and degradability | No data available. | | | |
| 12.3. Bioaccumulative potential | | | | |
| N-(1-Naphthyl)ethylenediamine dihydrochloride (1465-25-4) | | | | |
| Bioaccumulative potential | No data available. | | | |
| 12.4. Mobility in soil | | | | |
| No additional information available | | | | |
| 12.5. Results of PBT and vPvB assessment | | | | |
| N-(1-Naphthyl)ethylenediamine dihydrochloride (1465-25-4) | | | | |
| This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII | | | | |
| This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | | | | |
| 12.6. Other adverse effects | | | | |
| Additional information : | Avoid release to the environment. | | | |
| | | | | |

| SECTION 13: Disposal considerations | |
|--|---|
| 13.1. Waste treatment methods | |
| Product/Packaging disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. |
| Ecology - waste materials | : Avoid release to the environment. |

| In accordance with ADR / RID / IMDG / IATA / ADN | | | | | |
|--|--|--|--|--|--|
| IMDG | ΙΑΤΑ | ADN | RID | | |
| 14.1. UN number | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | | |
| 14.2. UN proper shipping name | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | | |
| 14.3. Transport hazard class(es) | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | | |
| 14.4. Packing group | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | | |
| 14.5. Environmental hazards | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | | |
| | IMDG Not regulated g name Not regulated Class(es) Not regulated Not regulated Not regulated ards | IMDG / IATA / ADN IMDG IATA IMDG IATA Not regulated Not regulated g name Not regulated Not regulated Not regulated Stass(es) Not regulated Not regulated Not regulated Not regulated Not regulated | IMDG / IATA / ADN IMDG IATA ADN IMDG Not regulated Not regulated Not regulated Not regulated Not regulated Stass(es) Not regulated Not regulated Not regulated Not regulated Not regulated | | |

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No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

N-(1-Naphthyl)ethylenediamine dihydrochloride is not on the REACH Candidate List N-(1-Naphthyl)ethylenediamine dihydrochloride is not on the REACH Annex XIV List Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

| SECTION 16: Other information | | | |
|-------------------------------------|---|--|--|
| Data sources : | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. | | |
| Other information : | : None. | | |
| Full text of H- and EUH-statements: | | | |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 | | |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 | | |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation | | |
| H315 | Causes skin irritation. | | |
| H319 | Causes serious eye irritation. | | |
| H335 | May cause respiratory irritation. | | |

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product