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SAFETY DATA SHEET

HYDROCHLORIC ACID 1.18 S.G. LRG

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

| | |
|---------------------------|---------------------------------|
| Product name | HYDROCHLORIC ACID 1.18 S.G. LRG |
| Product number | 1206 |
| REACH registration number | 01-2119484862-27-XXXX |
| CAS number | 7647-01-0 |
| EU index number | 017-002-01-X |
| EC number | 231-595-7 |

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

| | |
|----------------------|--|
| Identified uses | Cleaning agent. Laboratory reagent. |
| Uses advised against | No specific uses advised against are identified. |

1.3. Details of the supplier of the safety data sheet

| | |
|----------|---|
| Supplier | Reagent Chemical Services 11b - 13 Aston Fields Road Whitehouse Industrial Estate Runcorn Cheshire WA7 3DL T: 01928 716903 (08.30 - 17.00) F: 01928 716425 E: info@reagent.co.uk |
|----------|---|

1.4. Emergency telephone number

| | |
|---------------------|--|
| Emergency telephone | OHES Environmental Ltd 24-7 Tel. 0333 333 9939 (24 hour) |
| Notes | The product identification numbers refer to hydrogen chloride. |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

| | |
|-----------------------|---|
| Physical hazards | Met. Corr. 1 - H290 |
| Health hazards | Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 |
| Environmental hazards | Not Classified |

Classification (67/548/EEC or 1999/45/EC) C;R34. Xi;R37.

2.2. Label elements

HYDROCHLORIC ACID 1.18 S.G. LRG

EC number 231-595-7

Hazard pictograms



Signal word Danger

Hazard statements

H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.

Precautionary statements

P260 Do not breathe vapour/spray.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P501 Dispose of contents/container in accordance with local regulations.

Contains HYDROCHLORIC ACID 36 %

Supplementary precautionary statements

P234 Keep only in original packaging.
 P261 Avoid breathing vapour/spray.
 P264 Wash contaminated skin thoroughly after handling.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTRE/doctor if you feel unwell.
 P321 Specific treatment (see medical advice on this label).
 P363 Wash contaminated clothing before reuse.
 P390 Absorb spillage to prevent material damage.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P406 Store in a corrosion-resistant/... container with a resistant inner liner.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | | |
|--|----------------------|--|
| HYDROCHLORIC ACID ...% | | 10-30% |
| CAS number: 7647-01-0 | EC number: 231-595-7 | REACH registration number: 01-2119484862-27-0000 |
| Classification Met. Corr. 1 - H290 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 | | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments An aqueous solution of hydrochloric acid.

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SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|----------------------------|---|
| General information | Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician. |
| Inhalation | Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place. |
| Ingestion | Rinse mouth thoroughly with water. Remove any dentures. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. |
| Skin contact | It is important to remove the substance from the skin immediately. Take off immediately all contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Chemical burns must be treated by a physician. |
| Eye contact | Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 10 minutes. |
| Protection of first aiders | First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. |

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

| | |
|---------------------|---|
| General information | See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | A single exposure may cause the following adverse effects: Severe irritation of nose and throat. Symptoms following overexposure may include the following: Corrosive to the respiratory tract. |
| Ingestion | May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting. |
| Skin contact | Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur. |
| Eye contact | Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness. |

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

| | |
|----------------------|------------------------|
| Notes for the doctor | Treat symptomatically. |
|----------------------|------------------------|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|------------------------------|--|
| Suitable extinguishing media | The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire. |
|------------------------------|--|

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Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Severe corrosive hazard. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours. Hydrogen chloride (HCl).

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes. Avoid contact with contaminated tools and objects.

6.2. Environmental precautions

Environmental precautions The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. This product is corrosive. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. The requirements of the local water authority must be complied with if contaminated water is flushed directly to the sewer. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. This product is corrosive. Immediate first aid is imperative. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Store away from the following materials: Alkalis. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

HYDROCHLORIC ACID ...%

Long-term exposure limit (8-hour TWA): WEL 1 ppm 2 mg/m³ gas and aerosol mists

Short-term exposure limit (15-minute): WEL 5 ppm 8 mg/m³ gas and aerosol mists

WEL = Workplace Exposure Limit.

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DNEL

Workers - Inhalation; Long term local effects: 8 mg/m³
 Workers - Inhalation; Short term local effects: 15 mg/m³
 General population - Inhalation; Long term local effects: 8 mg/m³
 General population - Inhalation; Short term local effects: 15 mg/m³

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DNEL

Workers - Inhalation; Long term local effects: 8 mg/m³
 Workers - Inhalation; Short term local effects: 15 mg/m³
 General population - Inhalation; Long term local effects: 8 mg/m³
 General population - Inhalation; Short term local effects: 15 mg/m³

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended. It is recommended that gloves are made of the following material: Nitrile rubber. Butyl rubber. Polyvinyl chloride (PVC). Viton rubber (fluoro rubber). The selected gloves should have a breakthrough time of at least 8 hours. Protective gloves should have a minimum thickness of 0.4 mm. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

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| | |
|---------------------------------|--|
| Respiratory protection | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Consult with the supplier as to the compatibility of the equipment with the chemical of concern. |
| Environmental exposure controls | Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Store in a demarcated bunded area to prevent release to drains and/or watercourses. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---|
| Appearance | Liquid. |
| Colour | Colourless. |
| Odour | Pungent. |
| pH | pH (concentrated solution): <1 |
| Melting point | Not determined. |
| Initial boiling point and range | Not determined. |
| Flash point | Not relevant. |
| Evaporation rate | Not determined. |
| Evaporation factor | Not determined. |
| Flammability (solid, gas) | No. |
| Upper/lower flammability or explosive limits | Not relevant. |
| Vapour pressure | Not determined. |
| Vapour density | Not determined. |
| Relative density | Approx. 1.18 @ @ 20°C |
| Bulk density | Not relevant. |
| Solubility(ies) | Not determined. Miscible with water. |
| Partition coefficient | Not applicable. REACH dossier information. |
| Auto-ignition temperature | Not relevant. |
| Decomposition Temperature | Not determined. |
| Viscosity | Not determined. |
| Explosive properties | Not considered to be explosive. |
| Explosive under the influence of a flame | No |
| Oxidising properties | Does not meet the criteria for classification as oxidising. |

HYDROCHLORIC ACID 1.18 S.G. LRG

9.2. Other information

| | |
|---------------------------|-----------------|
| Refractive index | Not determined. |
| Particle size | Not relevant. |
| Molecular weight | Not relevant. |
| Volatility | Not determined. |
| Saturation concentration | Not determined. |
| Critical temperature | Not relevant. |
| Volatile organic compound | Not relevant. |

SECTION 10: Stability and reactivity

10.1. Reactivity

| | |
|------------|---|
| Reactivity | The following materials may react with the product: Alkalis. Inorganic sulphides. Organic sulphur compounds. Oxidising agents. Inorganic cyanides. Organic cyanides (nitriles). |
|------------|---|

10.2. Chemical stability

| | |
|-----------|---|
| Stability | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
|-----------|---|

10.3. Possibility of hazardous reactions

| | |
|------------------------------------|---|
| Possibility of hazardous reactions | May generate heat. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air. Reactions can occur with incompatible materials to produce toxic or corrosive gases. May produce hydrogen cyanide or hydrogen sulphide. |
|------------------------------------|---|

10.4. Conditions to avoid

| | |
|---------------------|--|
| Conditions to avoid | Avoid heat. Containers can burst violently or explode when heated, due to excessive pressure build-up. |
|---------------------|--|

10.5. Incompatible materials

| | |
|--------------------|---|
| Materials to avoid | Alkalis. Amines. Mild steel. Stainless steel. Aluminium. May be corrosive to metals. Oxidising agents. Inorganic sulphides. Organic sulphur compounds. Inorganic cyanides. Organic cyanides (nitriles). |
|--------------------|---|

10.6. Hazardous decomposition products

| | |
|----------------------------------|---|
| Hazardous decomposition products | Does not decompose when used and stored as recommended. |
|----------------------------------|---|

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

| | |
|--------------------------------|--|
| Notes (oral LD ₅₀) | Based on available data the classification criteria are not met. |
|--------------------------------|--|

Acute toxicity - dermal

| | |
|----------------------------------|--|
| Notes (dermal LD ₅₀) | Based on available data the classification criteria are not met. |
|----------------------------------|--|

Acute toxicity - inhalation

| | |
|---|-----|
| Acute toxicity inhalation (LC ₅₀ vapours mg/l) | 8.3 |
|---|-----|

| | |
|--------------------------------------|--|
| Notes (inhalation LC ₅₀) | Based on available data the classification criteria are not met. |
|--------------------------------------|--|

Skin corrosion/irritation

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| | |
|---|--|
| Animal data | Skin Corr. 1B - H314 Causes severe burns. |
| Extreme pH | ≤ 2 Corrosive. |
| <u>Serious eye damage/irritation</u> | |
| Serious eye damage/irritation | Eye Dam. 1 - H318 Corrosive to skin. Corrosivity to eyes is assumed. |
| <u>Respiratory sensitisation</u> | |
| Respiratory sensitisation | Based on available data the classification criteria are not met. |
| <u>Skin sensitisation</u> | |
| Skin sensitisation | Based on available data the classification criteria are not met. |
| <u>Germ cell mutagenicity</u> | |
| Genotoxicity - in vitro | Based on available data the classification criteria are not met. |
| Genotoxicity - in vivo | Scientifically unjustified. |
| <u>Carcinogenicity</u> | |
| Carcinogenicity | Based on available data the classification criteria are not met. NOAEL <10 ppm, Inhalation, Rat |
| IARC carcinogenicity | None of the ingredients are listed or exempt. |
| <u>Reproductive toxicity</u> | |
| Reproductive toxicity - fertility | Based on available data the classification criteria are not met. |
| Reproductive toxicity - development | Based on available data the classification criteria are not met. |
| <u>Specific target organ toxicity - single exposure</u> | |
| STOT - single exposure | STOT SE 3 - H335 May cause respiratory irritation. |
| Target organs | Respiratory system, lungs |
| <u>Specific target organ toxicity - repeated exposure</u> | |
| STOT - repeated exposure | Not classified as a specific target organ toxicant after repeated exposure. NOAEL 20 ppm, Inhalation, Rat 13 weeks |
| Target organs | Respiratory system, lungs |
| <u>Aspiration hazard</u> | |
| Aspiration hazard | Based on available data the classification criteria are not met. |
| . | |
| General information | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| Inhalation | Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat. |
| Ingestion | May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting. |
| Skin contact | Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur. |
| Eye contact | Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness. |
| Route of exposure | Ingestion Inhalation Skin and/or eye contact |

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Target organs Respiratory system, lungs

Toxicological information on ingredients.

HYDROCHLORIC ACID ...%

| | |
|--|---|
| Toxicological effects | The toxicity of this substance has been assessed during REACH registration. |
| <u>Acute toxicity - oral</u> | |
| Notes (oral LD ₅₀) | Scientifically unjustified. REACH dossier information. |
| <u>Acute toxicity - dermal</u> | |
| Notes (dermal LD ₅₀) | Scientifically unjustified. REACH dossier information. |
| <u>Acute toxicity - inhalation</u> | |
| Acute toxicity inhalation (LC ₅₀ dust/mist mg/l) | 8.3 |
| Species | Rat |
| Notes (inhalation LC ₅₀) | REACH dossier information. LC50 8.3 mg/l, 30 minutes, Dust/Mist Rat |
| <u>Skin corrosion/irritation</u> | |
| Animal data | Corrosive to skin. REACH dossier information. |
| <u>Serious eye damage/irritation</u> | |
| Serious eye damage/irritation | Causes serious eye damage. REACH dossier information. |
| <u>Respiratory sensitisation</u> | |
| Respiratory sensitisation | Scientifically unjustified. |
| <u>Skin sensitisation</u> | |
| Skin sensitisation | Not sensitising. REACH dossier information. |
| <u>Germ cell mutagenicity</u> | |
| Genotoxicity - in vitro | Negative. REACH dossier information. |
| Genotoxicity - in vivo | No specific test data are available. REACH dossier information. |
| <u>Carcinogenicity</u> | |
| Carcinogenicity | NOAEL <10 ppm, Inhalation, Rat Based on available data the classification criteria are not met. |
| <u>Reproductive toxicity</u> | |
| Reproductive toxicity - fertility | Scientifically unjustified. REACH dossier information. |
| Reproductive toxicity - development | This substance has no evidence of toxicity to reproduction. |
| <u>Specific target organ toxicity - single exposure</u> | |
| STOT - single exposure | No specific test data are available. |
| <u>Specific target organ toxicity - repeated exposure</u> | |
| STOT - repeated exposure | NOAEL 20 ppm, Inhalation, Rat 13 weeks |
| <u>Aspiration hazard</u> | |

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| | |
|-------------------|---|
| Aspiration hazard | Not anticipated to present an aspiration hazard, based on chemical structure. |
| Inhalation | Irritating to respiratory system. Burns can occur. |
| Ingestion | Corrosive. Small amounts may cause serious damage. |
| Skin contact | Causes burns. |
| Eye contact | This product is strongly corrosive. Causes serious eye damage. |

SECTION 12: Ecological information

| | |
|-------------|---|
| Ecotoxicity | The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. |
|-------------|---|

Ecological information on ingredients.HYDROCHLORIC ACID ...%

| | |
|-------------|---|
| Ecotoxicity | The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms. |
|-------------|---|

12.1. Toxicity

| | |
|----------|--|
| Toxicity | Based on available data the classification criteria are not met. |
|----------|--|

Ecological information on ingredients.HYDROCHLORIC ACID ...%Acute aquatic toxicity

| | |
|--|---|
| Acute toxicity - fish | LC , 96 hours: pH 3.5 - 3.25 , Lepomis macrochirus (Bluegill) |
| Acute toxicity - aquatic invertebrates | EC , 48 hours: pH 4.92 , Daphnia magna |
| Acute toxicity - aquatic plants | EC , 72 hours: pH 4.7 , Freshwater algae |
| Acute toxicity - microorganisms | EC , 3 hours: pH 5 - 5.5 , Activated sludge |

| | |
|------------------------------|----------------|
| Acute toxicity - terrestrial | Not available. |
|------------------------------|----------------|

Chronic aquatic toxicity

| | |
|---|-----------------------------|
| Chronic toxicity - fish early life stage | Not determined. |
| Short term toxicity - embryo and sac fry stages | Not determined. |
| Chronic toxicity - aquatic invertebrates | Scientifically unjustified. |

12.2. Persistence and degradability

| | |
|-------------------------------|--|
| Persistence and degradability | The product contains inorganic substances which are not biodegradable. |
| Phototransformation | Not relevant. |
| Stability (hydrolysis) | Not relevant. |

HYDROCHLORIC ACID 1.18 S.G. LRG

| | |
|--------------------------|-----------------------------|
| Biodegradation | Scientifically unjustified. |
| Biological oxygen demand | Not relevant. |
| Chemical oxygen demand | Not relevant. |

Ecological information on ingredients.

HYDROCHLORIC ACID ...%

| | |
|-------------------------------|--|
| Persistence and degradability | The product is expected to be biodegradable. |
| Phototransformation | Not relevant. Substance is inorganic. |
| Stability (hydrolysis) | Not relevant. |
| Biodegradation | Scientifically unjustified. |
| Biological oxygen demand | Not relevant. |
| Chemical oxygen demand | Not relevant. |

12.3. Bioaccumulative potential

| | |
|---------------------------|--|
| Bioaccumulative potential | Bioaccumulation is unlikely. |
| Partition coefficient | Not applicable. REACH dossier information. |

Ecological information on ingredients.

HYDROCHLORIC ACID ...%

| | |
|---------------------------|-------------------------------------|
| Bioaccumulative potential | The product is not bioaccumulating. |
| Partition coefficient | Scientifically unjustified. |

12.4. Mobility in soil

| | |
|-----------------------------------|--|
| Mobility | The product is water-soluble and may spread in water systems. Volatile liquid. |
| Adsorption/desorption coefficient | Scientifically unjustified. |
| Henry's law constant | Not determined. |
| Surface tension | Not relevant. REACH dossier information. |

Ecological information on ingredients.

HYDROCHLORIC ACID ...%

| | |
|-----------------------------------|---|
| Mobility | The product is miscible with water and may spread in water systems. |
| Adsorption/desorption coefficient | Scientifically unjustified. |
| Henry's law constant | Not determined. |
| Surface tension | Scientifically unjustified. |

12.5. Results of PBT and vPvB assessment

| | |
|------------------------------------|---|
| Results of PBT and vPvB assessment | This product does not contain any substances classified as PBT or vPvB. |
|------------------------------------|---|

HYDROCHLORIC ACID 1.18 S.G. LRG

Ecological information on ingredients.HYDROCHLORIC ACID ...%

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.HYDROCHLORIC ACID ...%

Other adverse effects Not determined.

SECTION 13: Disposal considerations13.1. Waste treatment methods

| | |
|---------------------|--|
| General information | The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous. |
| Disposal methods | Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. |

SECTION 14: Transport information

General For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

14.1. UN number

| | |
|------------------|------|
| UN No. (ADR/RID) | 1789 |
| UN No. (IMDG) | 1789 |
| UN No. (ICAO) | 1789 |

14.2. UN proper shipping name

| | |
|--------------------------------|-------------------|
| Proper shipping name (ADR/RID) | HYDROCHLORIC ACID |
| Proper shipping name (IMDG) | HYDROCHLORIC ACID |
| Proper shipping name (ICAO) | HYDROCHLORIC ACID |
| Proper shipping name (ADN) | HYDROCHLORIC ACID |

14.3. Transport hazard class(es)

| | |
|---------------|---|
| ADR/RID class | 8 |
| ADR/RID label | 8 |

HYDROCHLORIC ACID 1.18 S.G. LRG

IMDG class 8

ICAO class/division 8

Transport labels

14.4. Packing group

ADR/RID packing group II

IMDG packing group II

ICAO packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

E mS F-A, S-B

Emergency Action Code 2R

Hazard Identification Number 80
(ADR/RID)

Tunnel restriction code (E)

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code**SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
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 (as amended).

Guidance Workplace Exposure Limits EH40.
Industry - Dermal; Long term systemic effects 22 mg/kg/day
ECHA Guidance on the compilation of safety data sheets 2014.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

HYDROCHLORIC ACID 1.18 S.G. LRG

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

| | |
|--|---|
| Abbreviations and acronyms used in the safety data sheet | <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>CAS: Chemical Abstracts Service.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>LC : Lethal Concentration to 50 % of a test population.</p> <p>LD : Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>EC : 50% of maximal Effective Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> |
| Classification abbreviations and acronyms | <p>Met. Corr. = Corrosive to metals</p> <p>Eye Dam. = Serious eye damage</p> <p>Skin Corr. = Skin corrosion</p> <p>STOT SE = Specific target organ toxicity-single exposure</p> |
| General information | This datasheet is not intended to be a replacement for a full risk assessment, these should always be carried out by competent persons. Toxicological and ecotoxicological information has been taken from the ECHA website of registered substances. |
| Key literature references and sources for data | Source: European Chemicals Agency, http://echa.europa.eu/ |
| Classification procedures according to Regulation (EC) 1272/2008 | Eye Dam. 1 - H318: Skin Corr. 1B - H314: STOT SE 3 - H335: : Calculation method. Met. Corr. 1 - H290: : Expert judgement. |
| Training advice | Only trained personnel should use this material. |
| Revision comments | Change to section 15 |
| Revision date | 29/07/2020 |
| Revision | 5 |
| Supersedes date | 28/07/2020 |
| SDS number | 11757 |
| Risk phrases in full | <p>R34 Causes burns.</p> <p>R37 Irritating to respiratory system.</p> |
| Hazard statements in full | <p>H290 May be corrosive to metals.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H318 Causes serious eye damage.</p> <p>H335 May cause respiratory irritation.</p> |

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.