SAFETY DATA SHEET
STRIPPER HF

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 STRIPPER HF

Product number SHF35B

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

Identified uses Paint stripper. Restricted to industrial use and to professionals approved in certain EU Member States — verify where use is allowed.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Ribble Technology
2 Brierley Street
Ashton on Ribble
Preston
Lancashire
PR2 2AU
UK
T: +44 (0) 1772 202227
F: +44 (0) 1772 561239
admin@ribbletechnology.co.uk

1.4. Emergency telephone number

Emergency telephone

T: +44 (0) 1772 202227
Mon - Fri (09:00-17:00h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 3 - H301 Acute Tox. 2 - H310 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Carc. 2 - H351 STOT SE 1 - H370

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms

Signal word Danger

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Hazard statements
H301+H331 Toxic if swallowed or if inhaled.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H351 Suspected of causing cancer.
H370 Causes damage to organs .

Precautionary statements
P260 Do not breathe vapour/ spray.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves, eye and face protection.
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.
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.
P321 Specific treatment (see medical advice on this label).
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Specific medical advice
If calcium gluconate gel is available, rub it into affected skin., DO NOT use calcium gluconate gel on the eye., If ingested, give milk or calcium gluconate by mouth.

Supplemental label information
EUH071 Corrosive to the respiratory tract.
Restricted to industrial use and to professionals approved in certain EU Member States — verify where use is allowed.

Contains
Dichloromethane, Methanol, Hydrofluoric acid

Supplementary precautionary statements
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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

Dichloromethane **60-90%**

CAS number: 75-09-2 EC number: 200-838-9

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Carc. 2 - H351
STOT SE 3 - H336

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Methanol	**10-30%**
CAS number: 67-56-1	EC number: 200-659-6

Classification
Flam. Liq. 2 - H225
Acute Tox. 3 - H301
Acute Tox. 3 - H311
Acute Tox. 3 - H331
STOT SE 1 - H370

Hydrofluoric acid	**<10%**
CAS number: 7664-39-3	EC number: 231-634-8

Classification
Acute Tox. 2 - H300
Acute Tox. 1 - H310
Acute Tox. 2 - H330
Skin Corr. 1A - H314

The full text for all hazard statements is displayed in Section 16.

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. Give a few small glasses of water or milk to drink. 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 any contact lenses and open eyelids wide apart. 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.

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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. Prolonged or repeated exposure may cause the following adverse effects: Suspected of causing cancer.

Ingestion May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting. Prolonged or repeated exposure may cause the following adverse effects: Suspected of causing cancer.

Skin contact A single exposure may cause the following adverse effects: Pain. Unconsciousness, possibly death. Prolonged or repeated exposure may cause the following adverse effects: Suspected of causing cancer.

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 Contains hydrofluoric acid. If calcium gluconate gel is available, rub it into affected skin. Massage continuously until pain disappears. Do not use this method for treatment of eyes. If ingested, give milk or calcium gluconate by mouth. Keep affected person under observation.

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.

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. This product is toxic. 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.

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

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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 Slightly soluble in water. Aquatic toxicity is unlikely to occur. However, large or frequent spills may have hazardous effects on the environment. Absorb spillage with non-combustible, absorbent material. Avoid discharge into drains or watercourses or onto the ground. 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

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. Provide adequate ventilation. 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. Neutralise with alkali. Caution. May generate heat. Following dilution and neutralisation, discharge to the sewer with plenty of water may be permitted. 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 toxic. This product is corrosive. Immediate first aid is imperative. Suspected of causing cancer. 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.

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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 Toxic 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

Dichloromethane

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m³
Short-term exposure limit (15-minute): WEL 300 ppm 1060 mg/m³
Sk

Methanol

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m³
Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m³
Sk

Hydrofluoric acid

Long-term exposure limit (8-hour TWA): WEL 1.8 ppm 1.5 mg/m³
Short-term exposure limit (15-minute): WEL 3 ppm 2.5 mg/m³
as F

WEL = Workplace Exposure Limit.
Sk = Can be absorbed through the skin.

8.2. Exposure controls

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. 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. 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.

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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.
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.
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	Clear liquid.
Colour	Colourless.
Odour	Characteristic. Organic solvents.
Odour threshold	Not determined.
pH	Acidic.
Melting point	Not relevant.
Initial boiling point and range	Not determined.
Flash point	35-60°C Non-flammable (according to the Approved Test Method 32.5.2 Test L2 - United Nations Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria.)
Evaporation rate	Not determined.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	Not determined.
Solubility(ies)	Slightly soluble in water. Miscible with the following materials: Organic solvents.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.

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Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See the other subsections of this section for further details.

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	No potentially hazardous reactions known.

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.

10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Summary	Toxic if swallowed.
Notes (oral LD_{50})	Acute Tox. 3 - H301 Toxic if swallowed.
ATE oral (mg/kg)	101.69

Acute toxicity - dermal

Summary	Fatal in contact with skin.
Notes (dermal LD_{50})	Acute Tox. 2 - H310 Fatal in contact with skin.
ATE dermal (mg/kg)	101.69

Acute toxicity - inhalation

Summary	Toxic if inhaled.
Notes (inhalation LC_{50})	Acute Tox. 3 - H331 Toxic if inhaled.
ATE inhalation (gases ppm)	2,222.22
ATE inhalation (vapours mg/l)	5.77

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Skin corrosion/irritation

Summary	Causes severe skin burns and eye damage.
Animal data	Skin Corr. 1B - H314 Causes severe burns.
Extreme pH	Moderate pH (> 2 and < 11.5).

Serious eye damage/irritation

Summary	Causes serious eye damage.

Respiratory sensitisation

Summary	Based on available data the classification criteria are not met.

Skin sensitisation

Summary	Based on available data the classification criteria are not met.

Germ cell mutagenicity

Summary	Based on available data the classification criteria are not met.

Carcinogenicity

Summary	Suspected of causing cancer.
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 2B Possibly carcinogenic to humans.

Reproductive toxicity

Summary	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Summary	Causes damage to organs . Corrosive to the respiratory tract.
Target organs	Respiratory system, lungs

Specific target organ toxicity - repeated exposure

Summary	Based on available data the classification criteria are not met.

Aspiration hazard

Summary	Based on available data the classification criteria are not met.

General information	May cause cancer after repeated exposure. Risk of cancer depends on duration and level of exposure. 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	A single exposure may cause the following adverse effects: Pain. Unconsciousness, possibly death.
Eye contact	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.
Acute and chronic health hazards	Contains a substance/a group of substances which may cause cancer.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target organs	No specific target organs known.

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Toxicological information on ingredients.

Dichloromethane

Acute toxicity - oral

Notes (oral LD_{50})	LD_{50} > 2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} > 2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	86.0
Species	Mouse
Notes (inhalation LC_{50})	Vapour 4 hours
ATE inhalation (vapours mg/l)	86.0

Skin corrosion/irritation

Animal data	Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: Severe erythema (beef redness) to eschar formation preventing grading of erythema (4). Oedema score: Slight oedema - edges of area well defined by definite raising (2). Primary dermal irritation index: 5.2-5.7 Fully reversible within 16 days. Irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Irritating.

Skin sensitisation

Skin sensitisation	Local Lymph Node Assay (LLNA) - Mouse: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation: Inconclusive.
Genotoxicity - in vivo	Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity	NOAEC 2000 ppm, Inhalation, Vapour, Rat LOAEC 1000 ppm, Inhalation, Vapour, Rat Suspected of causing cancer.
Target organ for carcinogenicity	Liver Respiratory system, lungs
IARC carcinogenicity	IARC Group 2B Possibly carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility	Two-generation study - NOAEC >1500 ppm, Inhalation, Rat P, F1, F2
Reproductive toxicity - development	Maternal toxicity: - NOAEC: 1250 ppm, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure	May cause drowsiness or dizziness.
Target organs	Central nervous system

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Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEC 200 ppm, Inhalation, Rat

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Methanol

Acute toxicity - oral

Notes (oral LD_{50}) International Programme on Chemical Safety (IPCS) (1997) Environmental Health Criteria 196: Methanol. Geneva, World Health Organization. Toxic if swallowed.

ATE oral (mg/kg) 300.0

Acute toxicity - dermal

Notes (dermal LD_{50}) Converted acute toxicity point estimate (cATpE) Toxic in contact with skin.

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Converted acute toxicity point estimate (cATpE) Toxic if inhaled.

ATE inhalation (vapours mg/l) 3.0

Skin corrosion/irritation

Animal data Dose: 2.5cm x 2.5cm, 20 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). Not irritating. REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.05 ml, 24 hours, Rabbit Not irritating. REACH dossier information.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity NOAEC >1.3 mg/l, Inhalation, Mouse

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEC 1.3 mg/l, Inhalation, Rat P REACH dossier information.

Reproductive toxicity - development Maternal toxicity: - NOAEL: 5000 mg/kg/day, Oral, Mouse Teratogenicity: - LOAEL: 5000 mg/kg/day, Oral, Mouse REACH dossier information.

Specific target organ toxicity - single exposure

STOT - single exposure STOT SE 1 - H370

Target organs Eyes Central nervous system

Specific target organ toxicity - repeated exposure

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STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	Not relevant.

Hydrofluoric acid

Acute toxicity - oral

Notes (oral LD_{50})	Converted acute toxicity point estimate (cATpE)
ATE oral (mg/kg)	5.0

Acute toxicity - dermal

Notes (dermal LD_{50})	Converted acute toxicity point estimate (cATpE)
ATE dermal (mg/kg)	5.0

Acute toxicity - inhalation

Notes (inhalation LC_{50})	Converted acute toxicity point estimate (cATpE)
ATE inhalation (gases ppm)	100.0
ATE inhalation (vapours mg/l)	0.5

Skin corrosion/irritation

Animal data	Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: Severe erythema (beef redness) to eschar formation preventing grading of erythema (4). Oedema score: Very slight oedema - barely perceptible (1). Corrosive. REACH dossier information.

Serious eye damage/irritation

Serious eye damage/irritation	Corrosive to skin. Corrosivity to eyes is assumed.

Respiratory sensitisation

Respiratory sensitisation	No information available.

Skin sensitisation

Skin sensitisation	No information available.

Germ cell mutagenicity

Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	NOEL 25 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility	Two-generation study - NOAEL 250 ppm, Oral, Rat F1 REACH dossier information. Based on available data the classification criteria are not met.

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Reproductive toxicity - development Maternal toxicity: - NOAEL: 175 ppm, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

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

Acute aquatic toxicity

Summary Based on available data the classification criteria are not met.

Chronic aquatic toxicity

Summary Based on available data the classification criteria are not met.

Ecological information on ingredients.

Dichloromethane

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hours: 193 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates LC_{50}, 48 hours: 27 mg/l, Daphnia magna

Acute toxicity - aquatic plants Toxicity threshold, 192 hours: 550 mg/l, Microcystis aeruginosa

Acute toxicity - microorganisms EC_{50}, 30 minutes: 2590 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEC, 28 days: 83 mg/l, Pimephales promelas (Fat-head Minnow)

Methanol

Toxicity Aquatic toxicity is unlikely to occur. Based on available data the classification criteria are not met.

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill)
EC_{50}, 96 hours: 12700 mg/l, Lepomis macrochirus (Bluegill)
REACH dossier information.

Acute toxicity - aquatic invertebrates EC_{50}, 96 hours: 18260 mg/l, Daphnia magna
REACH dossier information.

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Acute toxicity - aquatic plants	EC_{50}, 96 hours: ~ 22000 mg/l, Pseudokirchneriella subcapitata REACH dossier information.
Acute toxicity - microorganisms	IC_{50}, 3 hours: >1000 mg/l, Activated sludge REACH dossier information.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEC, 200 hours: 7900 mg/l, Oryzias latipes (Red killifish) REACH dossier information.

Hydrofluoric acid

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

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 51 mg/l, Oncorhynchus mykiss (Rainbow trout) Read-across data. REACH dossier information.
Acute toxicity - aquatic invertebrates	EC_{50}, 96 hours: 26-48 mg/l, Daphnia magna Read-across data. REACH dossier information.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage	NOEC, 21 days: 4 mg/l, Oncorhynchus mykiss (Rainbow trout) REACH dossier information.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Dichloromethane

Persistence and degradability	The product is readily biodegradable.
Phototransformation	Water - DT_{50} : ~ 21 months Water - DT_{50} : ~ 79 days
Stability (hydrolysis)	pH7 - Half-life : 1.5 years @ 25°C
Biodegradation	Water - Degradation 68%: 28 days

Methanol

Phototransformation	Water - DT_{50} : 17.2 days REACH dossier information.
Biodegradation	Water - Degradation (95%): 20 days Water - Degradation (91%): 15 days Water - Degradation (88%): 10 days Water - Degradation (76%): 5 days REACH dossier information. The substance is readily biodegradable.

Hydrofluoric acid

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Stability (hydrolysis)	No significant reaction in water.
Biodegradation	Not relevant.

12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	Not determined.

Ecological information on ingredients.

Dichloromethane

Bioaccumulative potential	BCF: 2.0-5.4, Cyprinus carpio (Common carp)
Partition coefficient	log Pow: 1.25

Methanol

Bioaccumulative potential	BCF: 4.5, Cyprinus carpio (Common carp)
Partition coefficient	log Pow: -0.77 REACH dossier information.

Hydrofluoric acid

Bioaccumulative potential	BCF: ~ 3-60, Fish

12.4. Mobility in soil

Mobility	The product is partly soluble in water and may spread in the aquatic environment. Volatile liquid. The product contains organic solvents which will evaporate easily from all surfaces.

Ecological information on ingredients.

Dichloromethane

Mobility	Highly volatile.
Adsorption/desorption coefficient	Water - log Koc: 0.89 - 1.05 @ ~20°C
Henry's law constant	376 Pa m³/mol @ 25°C Estimated value.

Methanol

Mobility	Mobile.
Adsorption/desorption coefficient	Soil - Koc: 0.13-0.61 @ 6°C
Henry's law constant	0.461 Pa m³/mol @ 25°C

Hydrofluoric acid

Mobility	Soluble in water.

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

Dichloromethane

STRIPPER HF

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

Methanol

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

Hydrofluoric 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.

SECTION 13: Disposal considerations

13.1. 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) 2922

UN No. (IMDG) 2922

UN No. (ICAO) 2922

UN No. (ADN) 2922

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Hydrofluoric acid, Dichloromethane)

Proper shipping name (IMDG) CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Hydrofluoric acid, Dichloromethane)

Proper shipping name (ICAO) CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Hydrofluoric acid, Dichloromethane)

Proper shipping name (ADN) CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS Hydrofluoric acid, Dichloromethane)

14.3. Transport hazard class(es)

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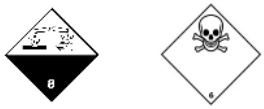
ADR/RID class	8
ADR/RID subsidiary risk	6.1
ADR/RID classification code	CT1
ADR/RID label	8
IMDG class	8
IMDG subsidiary risk	6.1
ICAO class/division	8
ICAO subsidiary risk	6.1
ADN class	8
ADN subsidiary risk	6.1

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN 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.

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	86
Tunnel restriction code	(E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

STRIPPER HF

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
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).
Authorisations (Annex XIV Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Annex XVII Regulation 1907/2006)	This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 59 Restricted to industrial use and to professionals approved in certain EU Member States — verify where use is allowed.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LC_{50}: Lethal Concentration to 50 % of a test population. LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose). EC_{50}: 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Carc. = Carcinogenicity Eye Dam. = Serious eye damage Skin Corr. = Skin corrosion STOT SE = Specific target organ toxicity-single exposure
Classification procedures according to Regulation (EC) 1272/2008	Acute Tox. 2 - H310: Acute Tox. 3 - H331: Acute Tox. 3 - H301: Eye Dam. 1 - H318: Skin Corr. 1B - H314: STOT SE 1 - H370: Carc. 2 - H351: : Calculation method.
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision date	03/06/2020

STRIPPER HF

Revision	3
Supersedes date	22/06/2015
SDS number	3365
Hazard statements in full	H225 Highly flammable liquid and vapour. H300 Fatal if swallowed. H301 Toxic if swallowed. H310 Fatal in contact with skin. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H331 Toxic if inhaled. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H370 Causes damage to organs .