

Dambuster® Formulated Cleaner/Descaler

Revision Date – September, 2016
DS177

SAFETY DATA SHEET

'Dambuster'® Formulated Cleaner/Descaler

According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1. Product identifier

Product name Dambuster®

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

Identified uses Drain Clearing and Descaling

Uses advised against Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Directa UK Ltd
Cold Norton
Essex
CM3 6UA

head.office@directa.co.uk
01621 828882

1.4. Emergency telephone number

01621 828882

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

THIS PRODUCT IS NOT CLASSIFIED ACCORDING TO CLP.

Corrosive to skin and eyes.

Environment

Substantial amounts of the product may lead to a local change in acidity in small water systems which may have adverse effects on aquatic organisms.

This product is not classified according to CLP.

2.2. Label elements

Contains Inhibitors, Oils, Surfactants and Sulphuric Acid >75%



Labeling

Corrosive

Dambuster® Formulated Cleaner/Descaler

Safety Phrases

| | |
|-----------|---|
| P1/2 | Keep out of the reach of children. |
| P26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| P30 | Never add water to this product. |
| P36/37/39 | Wear suitable protective clothing, gloves and eye/face protection. |
| P45 | In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). |
| P56 | Dispose of this material and its container to hazardous or special waste collection point. |
| P27/28 | After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. |

2.3. Other hazards

May create irritating acidic fumes in damp air conditions. Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Mixture – Formulated product containing Oils, Inhibitors, Surfactants and acid

| | |
|-------------------------------|--------------------------|
| Sulphuric Acid >75% | |
| CAS-No.: 7664-93-9 | EC No.: 231-639-5 |
| Classification (EC 1272/2008) | |
| Skin Corr. 1A - H314 | |

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

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

CAUTION! First aid personnel must be aware of own risk during rescue! Remove victim immediately from source of exposure.

Inhalation

Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

Ingestion

Immediately rinse mouth and drink plenty of water (200-300 ml). DO NOT induce vomiting. Get medical attention immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS!

Skin contact

Immediately remove contaminated clothing. Flush skin thoroughly with water. Important to remove the substance from the skin immediately. Get medical attention promptly if symptoms occur after washing.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation.

Sore throat. Irritation of nose, throat and airway.

Ingestion

Dambuster® Formulated Cleaner/Descaler

May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Skin contact

May cause chemical burns to the skin. Discoloration of the skin.

Eye contact

Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative.

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

Treat Symptomatically. Splash in eye requires examination by eye specialist.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

The product is non-combustible. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

DO NOT use water if avoidable. Reacts with water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Fire or very high temperatures may create corrosive gases/vapours/fumes of H₂SO₄

Unusual Fire & Explosion Hazards

May ignite other combustible materials.

Specific hazards

In case of fire, toxic and corrosive gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Move container from fire area if it can be done without risk. Use water SPRAY only to cool containers! Do not put water on leaked material. Reacts violently with water.

Protective equipment for fire-fighters

Corrosive hazard. Wear chemical protection suit. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. Use protective gloves, goggles and suitable protective clothing. Avoid contact with skin and eyes.

6.2. Environmental precautions

Prevent entry into drains. Collect and dispose of spillage as indicated in section 13.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Stop leak if possible without risk. DO NOT TOUCH SPILLED MATERIAL! Small Spillages: Flush contaminated area with plenty of water. Large Spillages: Absorb with dry sand or earth, and place in suitable containers. Use sealed containers for reclamation or dispose of at a licenced hazardous waste collection point. Avoid contact with water.

6.4. Reference to other sections

For personal protection, see section 8. See section 11 for additional information on health hazards. For waste disposal, see section 13.

Dambuster® Formulated Cleaner/Descaler

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Read and follow manufacturer's recommendations. Avoid spilling, skin and eye contact. Do not handle broken packages without protective equipment. Do not eat, drink or smoke when using the product. Never add water to acid!

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Store away from: Alkalis. Combustible materials.

7.3. 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

| Name | STD | TWA - 8 Hrs | STEL - 15 Min | Notes |
|---------------------|-----|------------------------|---------------|-------|
| Sulphuric Acid >75% | WEL | 0,05 mg/m ³ | | |

WEL = Workplace Exposure Limit.

Sulphuric Acid >75% (CAS: 7664-93-9)

| | | | | |
|------------------------|-------------|------------|---------------|------------------------|
| DNEL | | | | |
| Professional | Inhalation. | Short Term | Local Effects | 0.1 mg/m ³ |
| Professional | Inhalation. | Long Term | Local Effects | 0.05 mg/m ³ |
| PNEC | | | | |
| Freshwater | 0.0025 | mg/l | | |
| Marinewater | 0.00025 | mg/l | | |
| STP | 8.8 mg/l | | | |
| Sediment (Freshwater) | 0.002 | mg/kg | | |
| Sediment (Marinewater) | 0.002 | mg/kg | | |

8.2. Exposure controls

Protective equipment

Eye Protection (to comply with BS2092 Chemical Grade) – Chemical Resistant Gloves – Protective clothing – Safety Boots

Process conditions

Provide eyewash, quick drench.

Engineering measures

Must not be handled in confined space without sufficient ventilation.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Use respiratory equipment with gas filter, type E.

Hand protection

Wear protective gloves. Butyl rubber gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Eye protection

Use approved safety goggles or face shield (to comply with BS2092 Chemical Grade)

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Wash hands after handling. Wash promptly if skin becomes wet or contaminated. Wash contaminated clothing before reuse. When using do not eat, drink or smoke.

Dambuster® Formulated Cleaner/Descaler

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| Appearance | Liquid |
| Colour | Red. |
| Odour | Slight odour. |
| Solubility | Soluble in water. |
| Initial boiling point and boiling range | >100°C @ 760 mm Hg REACH dossier information |
| Melting point (°C) | Liquid under normal operating and storage conditions. |
| Not determined. | |
| Relative density | ~ 1.7444-1.7712 kg/L @ 20°C |
| Vapour density (air=1) | REACH dossier information >1 REACH dossier information |
| Vapour pressure | ~6 Pa @ 20°C REACH dossier information |
| Evaporation rate | |
| Not known. | |
| pH-Value, Conc. Solution | <1 Supplier Safety Data Sheet Viscosity 22.5 mPaS @ 20°C Data for Sulphuric acid. REACH dossier information |
| Decomposition temperature (°C) | |
| Not relevant | |
| Flash point | Will not flash |
| Auto Ignition Temperature (°C) | Not determined. Non-flammable liquid, not sensitive to self-ignition. |
| Flammability Limit - Lower(%) | |
| Not relevant | |
| Flammability Limit - Upper(%) | |
| Not relevant | |
| Partition Coefficient (N-Octanol/Water) | |
| Not relevant | |
| Explosive properties | |
| Not explosive. | |
| Explosive under influence of flame. | |
| Not considered to be explosive. | |
| Oxidising properties | |
| Does not meet the criteria for oxidising. | |

9.2. Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The product reacts with water and will generate heat. Strong reaction with: Alkalis.

10.2. Chemical stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Not known.

Hazardous Polymerisation - Will not polymerise.

Dambuster® Formulated Cleaner/Descaler

10.4. Conditions to avoid

Do not add water directly to the product. It may cause a violent reaction. Reacts with alkalis and generates heat.

10.5. Incompatible materials

Materials To Avoid

Strong alkalis. Alkali metals. Amines. Hydrocarbons - halogenated. Flammable/combustible material. Do not add water to this product, unless to wash off skin/eyes or clear a spill as described in section 6. Use a large excess of water relative to amount of acid.

10.6. Hazardous decomposition products

Fire may evolve Corrosive gases/vapours/fumes of: H₂SO₄.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)

2140 mg/kg Rat

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50)

Not determined.

Highly Corrosive

Acute Toxicity (Inhalation LC50)

~ 375 mg/m³ Rat 4 hours

REACH dossier information

The effects of sulphuric acid following inhalation are entirely due to local irritation of the respiratory tract: there is no evidence for the systemic toxicity of sulphuric acid in any study as effects are limited to the site of contact. **Classification for acute inhalation toxicity is not considered to be appropriate.**

Skin Corrosion/Irritation:

Highly Corrosive.

Serious eye damage/irritation:

Skin corrosive; corrosivity to eyes is assumed. No testing is needed.

Respiratory or skin sensitisation:

Respiratory sensitisation

Not determined.

Highly Corrosive

Skin sensitisation

Not determined.

Highly Corrosive

Germ cell mutagenicity:

Genotoxicity - In Vitro

Chromosome aberration:

REACH dossier information

Positive.

Positive results obtained are considered to be a consequence of effects on the pH of the culture medium.

Genotoxicity - In Vivo

Not determined.

Carcinogenicity:

REACH dossier information

A review of the literature proposed that sulphuric acid may be a tumour promoter through the mechanism of chronic tissue irritation.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Not determined.

Reproductive Toxicity - Development

Developmental toxicity: NOAEC 19.3 mg/m³ Inhalation. Mouse

Dambuster® Formulated Cleaner/Descaler

REACH dossier information

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure:

STOT - Single exposure

Not determined.

Highly Corrosive

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

LOAEC 0.3 mg/m³ Inhalation. Rat

REACH dossier information

Target Organs

Larynx

Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.

Aspiration hazard:

Viscosity

22.5 mPaS at 20°C

REACH dossier information

Based on available data the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product components are not classified as environmentally hazardous.

However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms. The product may have adverse effects on organisms in soil and water.

12.1. Toxicity

Acute Toxicity - Fish

LC50 96 hours > 16 mg/l *Lepomis macrochirus* (Bluegill)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 100 mg/l *Daphnia magna*

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 72 hours > 100 mg/l *Desmodium subspicatus*

REACH dossier information

Acute Toxicity - Microorganisms

NOEC 21 days 88 mg/l total bacteria

REACH dossier information

Chronic Toxicity - Fish Early life Stage

NOEC 65 days 0.025 mg/l *Jordanella floridae*

REACH dossier information

Chronic Toxicity - Aquatic Invertebrates

NOEC 35 days 0.15 mg/l *Tanytarsus dissimilis*

REACH dossier information

12.2. Persistence and degradability

Degradability

Thermally degrades to constituent parts when in contact with water. Constituent parts will Biodegrade.

12.3. Bioaccumulative potential

Bioaccumulative potential - Will not bio-accumulate.

Partition coefficient

Not relevant

12.4. Mobility in soil

Mobility:

The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

Dambuster® Formulated Cleaner/Descaler

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Confident professionals may dispose of waste residues, by diluting into an excess of water and neutralising through careful and slow addition of an aqueous alkaline solution.

SECTION 14: TRANSPORT INFORMATION

General

Full protective clothing should be worn when handling this product.

14.1. UN number

| | |
|----------------------|------|
| UN No. (ADR/RID/ADN) | 1830 |
| UN No. (IMDG) | 1830 |
| UN No. (ICAO) | 1830 |

14.2. UN proper shipping name

Proper Shipping Name SULPHURIC ACID

14.3. Transport hazard class(es)

| | |
|-------------------------|--------------------------|
| ADR/RID/ADN Class | 8 |
| ADR/RID/ADN Class Class | 8: Corrosive substances. |
| ADR Label No. | 8 |
| IMDG Class | 8 |
| ICAO Class/Division | 8 |

Transport Labels

Corrosive

14.4. Packing group

| | |
|---------------------------|----|
| ADR/RID/ADN 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

| | |
|-----------------------|----------|
| EMS | F-A, S-B |
| Emergency Action Code | 2P |
| Hazard No. (ADR) | 80 |

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not relevant

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

This product is not classified according to CLP.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Health and Environmental Listings

Dambuster® Formulated Cleaner/Descaler

None of the ingredients are listed.
No specific authorisations are noted for this product.
No specific restrictions of use are noted for this product.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

| | |
|---------------------------------|------------------|
| Revision Date | September 2016 |
| Revision | 9 |
| Supersedes date | April 2016 |
| Safety Data Sheet Status | Approved. |

Disclaimer

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.