

Safety Data Sheet

Hazardous Chemical, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Drain-O-Flush**

Recommended use: DRAIN-O-FLUSH is a highly concentrated acidic solvent for opening drains.

Supplier: Minehan Agencies Pty Ltd
ABN: 21 010 895 100
Street Address: 29 Camuglia Street, Garbutt,
Townsville, QLD 4814
Australia
Telephone: 07 4774 4626
Facsimile: 07 4774 4616

Emergency Telephone number: Poisons Information Centre 13 11 26

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word

Danger

Hazard Classifications

Corrosive to Metals - Category 1
Skin Corrosion/Irritation - Category 1A
Serious Eye Damage/Irritation - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3 Respiratory Tract Irritation

Hazard Statements

AUH014 Reacts violently with water.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Prevention Precautionary Statements

P102 Keep out of reach of children.
P103 Read label before use.
P234 Keep only in original container.
P260 Do not breathe vapours / spray mist.
P264 Wash all exposed skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable

Safety Data Sheet



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.
P310 Immediately call a POISON CENTER or doctor/physician.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage Precautionary Statements

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in original container with a resistant inner liner.

Disposal Precautionary Statement

P501 Dispose of contents/container in accordance with local waste regulations.

Poison Schedule: S6. Poison

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 8

3. COMPOSITION INFORMATION

| CHEMICAL ENTITY | CAS NO | PROPORTION |
|--|-----------|-------------|
| Sulfuric acid | 7664-93-9 | >60 % (w/v) |
| Ingredients determined to be Non-Hazardous | | Balance |

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

Eye contact: Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically. Can cause corneal burns.

Safety Data Sheet



A.B.N. 21 010 895 100

5. FIRE FIGHTING MEASURES

Hazchem Code: 2P

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Non-combustible material.

Fire fighting further advice: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 40

7. HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Store in corrosive resistant container with a resistant inner liner. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison Schedule 6 (Poison) and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

| | TWA | | STEL | | NOTICES |
|----------------|-----|-------|------|-------|---------|
| | ppm | mg/m3 | ppm | mg/m3 | |
| Sulphuric acid | - | 1 | - | 3 | - |

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

Safety Data Sheet



A.B.N. 21 010 895 100

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, FACE SHIELD, RESPIRATOR.

Wear safety shoes, overalls, gloves, face shield, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from neoprene should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Material Family: Sulphur Compounds
Base Units: Litres
Form: Clear Liquid
Colour: Clear/Cloudy
Odour: Faint

Solubility in water: Soluble
Specific Gravity (20 °C): 1.8
Relative Vapour Density (air=1): >1
Vapour Pressure (20 °C): 0.001
Flash Point (°C): N App
Boiling Point/Range (°C): 290
pH: <1.0
Evaporation Rate (n-Butyl acetate=1): <1
% Volatile by Volume: 1

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: Corrosive liquid. Corrosive to many metals with the liberation of extremely flammable

Safety Data Sheet



hydrogen gas. Potential for exothermic hazard. Can react violently, releasing heat, when mixed with water and strong alkalis (bases). May evolve flammable, and when confined, explosive hydrogen gas in contact with some metals.

Conditions to avoid: Can act as an oxidizer with some organic compounds. Has a strong affinity for water. Reacts violently with water generating large quantities of heat. Contact with hypochlorites (swimming pool sodium or calcium hypochlorite) liberates toxic chlorine gas. Contact with cyanide's releases toxic hydrogen cyanide gas. Contact with sulphides and carbides releases toxic and corrosive gases. Reacts violently with strong bases, amines and other alkaline.

Incompatible materials: Bases, Halides, Organic materials, Carbides, fulminates, Nitrates, picrates, Cyanides, Chlorates, alkali halides, Zinc salts, permanganates, e.g. potassium permanganate, Hydrogen peroxide, Azides, Perchlorates., Nitromethane, phosphorous, Reacts violently with: cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorous(III) oxide, Powdered metals.

Hazardous decomposition products: May evolve toxic gases (sulphur oxides) when heated to decomposition. May evolve flammable hydrogen gas in contact with some metals. Corrosive to many metals with the liberation of extremely flammable hydrogen gas.

Hazardous reactions: Polymerization is not expected to occur. Exothermic reaction with water may result in violent spattering. Corrosive to most metals liberating flammable hydrogen gas.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.

Skin contact: Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

Ingestion: Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.

Eye contact: If applied to the eyes, this material causes severe eye damage. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >20 mg/L

LC50 (Guinea pig): 0.018 mg/L/8H

LC50 (Mice): 0.32 mg/L/2H

LC50 (Rat): 0.51 mg/L/2H

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

LD50 (Rat): 2140 mg/kg

Safety Data Sheet



A.B.N. 21 010 895 100

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes).
Skin: this material has been classified as a Category 1A Hazard (irreversible effects to skin).

Eye irritant (Rabbit): 1.38 mg
Eye irritant (Rabbit): 5 mg/30sec

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in respiratory irritation.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L. Do NOT allow product to enter waterways, drains or sewers. The product is highly acidic. If large spills occurred a water pH drop could be responsible for an environmental effect on aquatic organisms. Sulphuric acid is harmful to aquatic life in very low concentrations. May cause corrosion and deterioration of many common materials found in the environment (eg steel, limestone).

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K_{ow} < 4.

Ecotoxicity: No information available.

Persistence and degradability: The product is readily biodegradable.

Bioaccumulative potential: Risk of bioaccumulation in an aquatic species is low.

Mobility: Low mobility in soil.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

Safety Data Sheet

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



UN No: 1830
Dangerous Goods Class: 8
Packing Group: II
Hazchem Code: 2P
Emergency Response Guide No: 40

Proper Shipping Name: SULPHURIC ACID

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN No: 1830
Dangerous Goods Class: 8
Packing Group: II

Proper Shipping Name: SULPHURIC ACID

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 1830
Dangerous Goods Class: 8
Packing Group: II

Proper Shipping Name: SULPHURIC ACID

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:
Montreal Protocol (Ozone depleting substances)

Safety Data Sheet



The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
International Convention for the Prevention of Pollution from Ships (MARPOL)

This material is subject to the following international agreements:

Basel Convention (Hazardous Waste)

- Wastes from the production, formulation and use of organic solvents

This material/constituent(s) is covered by the following requirements:

- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).
- All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Reasons for issue: Revised
Format change

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.