

AC Profuse 800 EC Herbicide

Axichem Pty Ltd

Chemwatch: 5329-38

Version No: 6.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 10/03/2023

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L.GHS.AUS.EN

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

Product Identifier

| | |
|-------------------------------|---|
| Product name | AC Profuse 800 EC Herbicide |
| Chemical Name | Not Applicable |
| Synonyms | Emulsifiable concentrate containing prosulfocarb |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains prosulfocarb) |
| Chemical formula | Not Applicable |
| Other means of identification | Not Available |

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

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|--------------------------|--|
| Relevant identified uses | Selective systemic herbicide absorbed for pre-emergence and early post-emergence control of a wide variety of grasses and broad-leaved weeds in barley and wheat.. |
|--------------------------|--|

Details of the manufacturer or supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered company name | Axichem Pty Ltd |
| Address | 9 Palings Court Nerang QLD 4211 Australia |
| Telephone | 07 5596 1736 |
| Fax | Not Available |
| Website | www.axichem.com.au |
| Email | msds@axichem.com.au |

Emergency telephone number

| | |
|-----------------------------------|-------------------------------------|
| Association / Organisation | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone numbers | +61 1800 951 288 |
| Other emergency telephone numbers | +61 3 9573 3188 |

Once connected and if the message is not in your preferred language then please dial 01


SECTION 2 Hazards identification

Classification of the substance or mixture

COMBUSTIBLE LIQUID, regulated for storage purposes only

| | |
|-------------------------------|---|
| Poisons Schedule | S6 |
| Classification ^[1] | Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1A, Serious Eye Damage/Eye Irritation Category 2A, Hazardous to the Aquatic Environment Long-Term Hazard Category 2 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

Label elements

| | |
|---------------------|---|
| Hazard pictogram(s) |   |
|---------------------|---|

| | |
|-------------|---------|
| Signal word | Warning |
|-------------|---------|

Hazard statement(s)

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary statement(s) Prevention

| | |
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| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P261 | Avoid breathing mist/vapours/spray. |
| P264 | Wash all exposed external body areas thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P273 | Avoid release to the environment. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |

Precautionary statement(s) Response

| | |
|----------------|--|
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P391 | Collect spillage. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell. |
| P330 | Rinse mouth. |

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

| | |
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| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
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SECTION 3 Composition / information on ingredients**Substances**

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|---------------|-----------|--|
| 52888-80-9 | >60 | <u>prosulfocarb</u> |
| Not Available | | (800 g/L) |
| Not Available | 10-30 | Ingredients determined not to be hazardous |

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available

SECTION 4 First aid measures

Description of first aid measures

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| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. |
| Inhalation | <ul style="list-style-type: none"> If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary. |
| Ingestion | <ul style="list-style-type: none"> For advice, contact a Poisons Information Centre or a doctor. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice. |

Indication of any immediate medical attention and special treatment needed

Medical literature on human exposure to thiocarbamate derivatives is scarce.

- Animal studies suggest that contact dermatitis and thyroid hyperplasia may occur following exposure.
- These compounds do not have the cholinergic properties of structurally related carbamate insecticides.
- The usual measures for gut and skin contamination are recommended for large doses.
- Some thiocarbamates are structurally similar to disulfiram and may cause the characteristically unpleasant alcohol type reactions lasting for several hours; they may respond to fluids, oxygen and analgesics. Dysrhythmias may occur and patients with serious reactions should have cardiac monitoring.
- Precautions should be taken to prohibit intake of alcohol for 10 days.
- Fats, oils and lipid solvents must not be consumed as they may enhance absorption.

As a general rule thiocarbamates can be absorbed by the skin, mucous membranes and respiratory and gastrointestinal tract. They are eliminated quickly via expired air and urine. Two major pathways exist for the metabolism of thiocarbamates in mammals. One is via sulfoxidation and conjugation with glutathione. The conjugation product is cleaved to the cysteine derivative which is further metabolised to a mercapturic acid compound. The second route involves oxidation of the sulfur to a sulfoxide which is oxidised to a sulfone, or hydroxylation to compounds which enter the carbon metabolic pool.

SECTION 5 Firefighting measures

Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

| | |
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| Fire Incompatibility | <ul style="list-style-type: none"> Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

Advice for firefighters

| | |
|------------------------------|--|
| Fire Fighting | <ul style="list-style-type: none"> Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. |

| | |
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| | <ul style="list-style-type: none">▸ Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) other pyrolysis products typical of burning organic material. |
| HAZCHEM | •3Z |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

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| Minor Spills | <p>Environmental hazard - contain spillage.</p> <ul style="list-style-type: none">▸ Clean up all spills immediately.▸ Avoid breathing vapours and contact with skin and eyes.▸ Control personal contact with the substance, by using protective equipment.▸ Contain and absorb spill with sand, earth, inert material or vermiculite.▸ Wipe up.▸ Place in a suitable, labelled container for waste disposal. |
| Major Spills | <p>Environmental hazard - contain spillage. Moderate hazard.</p> <ul style="list-style-type: none">▸ Clear area of personnel and move upwind.▸ Alert Fire Brigade and tell them location and nature of hazard.▸ Wear breathing apparatus plus protective gloves.▸ Prevent, by any means available, spillage from entering drains or water course.▸ No smoking, naked lights or ignition sources.▸ Increase ventilation.▸ Stop leak if safe to do so.▸ Contain spill with sand, earth or vermiculite.▸ Collect recoverable product into labelled containers for recycling.▸ Absorb remaining product with sand, earth or vermiculite.▸ Collect solid residues and seal in labelled drums for disposal.▸ Wash area and prevent runoff into drains.▸ If contamination of drains or waterways occurs, advise emergency services. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

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|-------------------|--|
| Safe handling | <ul style="list-style-type: none">▸ DO NOT allow clothing wet with material to stay in contact with skin▸ Avoid all personal contact, including inhalation.▸ Wear protective clothing when risk of exposure occurs.▸ Use in a well-ventilated area.▸ Prevent concentration in hollows and sumps.▸ DO NOT enter confined spaces until atmosphere has been checked.▸ Avoid smoking, naked lights or ignition sources.▸ Avoid contact with incompatible materials.▸ When handling, DO NOT eat, drink or smoke.▸ Keep containers securely sealed when not in use.▸ Avoid physical damage to containers.▸ Always wash hands with soap and water after handling.▸ Work clothes should be laundered separately.▸ Use good occupational work practice.▸ Observe manufacturer's storage and handling recommendations contained within this SDS.▸ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. |
| Other information | <ul style="list-style-type: none">▸ Store below 38 deg. C.▸ Store in original containers.▸ Keep containers securely sealed.▸ Store in a cool, dry, well-ventilated area.▸ Store away from incompatible materials and foodstuff containers. |

- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

| | |
|-------------------------|--|
| Suitable container | <ul style="list-style-type: none">▸ Metal can or drum▸ Packaging as recommended by manufacturer.▸ Check all containers are clearly labelled and free from leaks. |
| Storage incompatibility | <ul style="list-style-type: none">▸ Thiocarbamates and dithiocarbamates are incompatible with acids, peroxides, and acid halides.▸ Flammable gases are generated by the combination of thiocarbamates and dithiocarbamates with aldehydes, nitrides, and hydrides.▸ Avoid reaction with oxidising agents |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|-----------------------------|---------------|---------------|---------------|
| AC Profuse 800 EC Herbicide | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|--------------|---------------|---------------|
| prosulfocarb | Not Available | Not Available |

Occupational Exposure Banding

| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|--------------|-----------------------------------|----------------------------------|
| prosulfocarb | E | ≤ 0.1 ppm |


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| Notes: | Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health. |
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MATERIAL DATA

Exposure controls

| | | |
|----------------------------------|---|---------------------------------|
| Appropriate engineering controls | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> | |
| | Type of Contaminant: | Air Speed: |
| | solvent, vapours, degreasing etc., evaporating from tank (in still air) | 0.25-0.5 m/s (50-100 f/min) |
| | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.) |
| | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s (200-500 f/min) |
| | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). | 2.5-10 m/s (500-2000 f/min.) |

AC Profuse 800 EC Herbicide

| | <p>Within each range the appropriate value depends on:</p> <table> <tr> <th>Lower end of the range</th><th>Upper end of the range</th></tr> <tr> <td>1: Room air currents minimal or favourable to capture</td><td>1: Disturbing room air currents</td></tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only</td><td>2: Contaminants of high toxicity</td></tr> <tr> <td>3: Intermittent, low production.</td><td>3: High production, heavy use</td></tr> <tr> <td>4: Large hood or large air mass in motion</td><td>4: Small hood - local control only</td></tr> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p> | Lower end of the range | Upper end of the range | 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents | 2: Contaminants of low toxicity or of nuisance value only | 2: Contaminants of high toxicity | 3: Intermittent, low production. | 3: High production, heavy use | 4: Large hood or large air mass in motion | 4: Small hood - local control only |
|---|--|------------------------|------------------------|---|---------------------------------|---|----------------------------------|----------------------------------|-------------------------------|---|------------------------------------|
| Lower end of the range | Upper end of the range | | | | | | | | | | |
| 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents | | | | | | | | | | |
| 2: Contaminants of low toxicity or of nuisance value only | 2: Contaminants of high toxicity | | | | | | | | | | |
| 3: Intermittent, low production. | 3: High production, heavy use | | | | | | | | | | |
| 4: Large hood or large air mass in motion | 4: Small hood - local control only | | | | | | | | | | |
| Individual protection measures, such as personal protective equipment |  | | | | | | | | | | |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. | | | | | | | | | | |
| Skin protection | See Hand protection below | | | | | | | | | | |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <p>NOTE:</p> <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> · frequency and duration of contact, · chemical resistance of glove material, · glove thickness and · dexterity <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> · When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. · Contaminated gloves should be replaced. <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> · Excellent when breakthrough time > 480 min · Good when breakthrough time > 20 min · Fair when breakthrough time < 20 min · Poor when glove material degrades <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> | | | | | | | | | | |

| | |
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| | <ul style="list-style-type: none"> · Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. · Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream. ▸ Skin cleansing cream. ▸ Eye wash unit. |

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|------------------------------------|--|----------------------|----------------------|
| up to 10 | 1000 | A-AUS / Class1 P2 | - |
| up to 50 | 1000 | - | A-AUS / Class 1 P2 |
| up to 50 | 5000 | Airline * | - |
| up to 100 | 5000 | - | A-2 P2 |
| up to 100 | 10000 | - | A-3 P2 |
| 100+ | | | Airline** |

* - Continuous Flow ** - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| | | | |
|---|---------------------|--|----------------|
| Appearance | Clear amber liquid. | | |
| Physical state | Liquid | Relative density (Water = 1) | 0.995-1.025 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Applicable | Decomposition temperature (°C) | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | Not Available | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | ~85 | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Combustible. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water | Partly miscible | pH as a solution (1%) | 8-11 |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

Continued...

SECTION 10 Stability and reactivity

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| Reactivity | See section 7 |
| Chemical stability | <ul style="list-style-type: none"> ▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 Toxicological information

Information on toxicological effects

| | |
|---------------------|--|
| Inhaled | <p>The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.</p> |
| Ingestion | <p>Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.</p> <p>Lethal doses of some thiocarbamates have produced muscle weakness and ascending paralysis progressing to respiratory paralysis and death in animals. Exposure to small quantities of thiocarbamates and intake of small quantities of ethanol may produce flushing, breathing difficulties, nausea and vomiting and lowered blood pressure. Sensitisation to alcohol may last as long as 6-14 days following exposure.</p> <p>Thiocarbamates are reversible cholinesterase inhibitors (they bind to cholinesterase active sites but are easily replaced by acetylcholine). In contrast the carbamates are effective cholinesterase inhibitors. Acetylcholine inhibition is the principal toxicological effect of concern in carbamates and is often the end-point used to assess risk. Although thiocarbamates are not particularly effective cholinesterase inhibitors they appear to be direct acting neurotoxic agents. Because the principal toxic effects are neurotoxicity (clinical signs, behavioural effects, and/ or changes in motor activity) and neuropathology, these effects are often used for end-point selection in risk assessments rather than cholinesterase inhibition.</p> <p>The acute toxicity of thiocarbamates is generally low. When administered in high doses, signs such as anorexia, squinting, hypersalivation, lachrymation, piloerection, laboured breathing, ataxia, hypothermia, incoordination, depression, pareses and muscular fibrillation may occur. While thiocarbamates and their metabolites can be found in certain organs such as liver and kidney, accumulation does not take place because of their rapid metabolism.</p> |
| Skin Contact | <p>Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period.</p> <p>Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.</p> |
| Eye | <p>Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.</p> <p>Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.</p> |
| Chronic | <p>Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.</p> <p>Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance who are likely to become hyper-responsive.</p> <p>Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing air-way hyper-responsiveness. The latter substances are not classified as asthmagens or respiratory sensitisers.</p> <p>Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive.</p> <p>Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance.</p> |

Continued...

AC Profuse 800 EC Herbicide

A case has been reported of a female kitchen worker who developed urticaria on her wrists after wearing a certain brand of gloves containing zinc diethyldithiocarbamate (ZDC). Patch testing revealed sensitivity to ZDC. Symptoms disappeared when other gloves were used (1).

DNA base-substitution mutagenicity has been demonstrated using Salmonella(2).

(1) Helander& Makela, Contact Dermatitis, 9, pp 327-328, 1983

(2) Hedenstedt et al, Mutation Research, 68, 313-325, 1979

Some dithiocarbamates have been reported to have teratogenic and/or carcinogenic potential and to affect male reproductive capacity. Ethylene(bis)dithiocarbamates are metabolically converted in animals to ethylene thiourea (ETU), a known carcinogen, teratogen and antithyroid agent. The principal systemic effects in animals after subchronic or chronic exposure to ETU include depression of body weight gains, antithyroid effects, changes in the liver, and increased serum cholesterol secondary to the antithyroid effect. The mechanism by which thioureas exert the latter effect involves the inhibition of iodine uptake and activation by the thyroid. At low doses, a physiological and biological compensation mechanism maintains normal levels of circulating thyroid hormone. Prolonged exposure to high doses of thyroid inhibitors causes severe hypertrophy and hyperplasia resulting in reduced levels of circulating thyroid hormone. Rats given 0.25% maneb or zineb (the zinc equivalent) in the diet for 2 years developed thyroid hyperplasia and nodular goiter. Acute non-specific decreases in immunological reactivity have also been recorded in rats. Dogs given daily doses of maneb - manganese ethylene(bis)dithiocarbamate - (200 mg/kg for several months) developed neurological disease (tremors, weakness, gastrointestinal disturbance, posterior incoordination, hypotonus and paresis progressing to flaccid paraplegia). This may result from the release of carbon disulfide from dithiocarbamates in the acid environment of the stomach. Dithiocarbamates produce an isothiocyanate radical ($-N=C=S$) in fungi and other microorganisms; this inactivates SH groups in amino acids contained within individual cells, thus producing biocidal activity.

Some thiocarbamates have an effect on sperm morphology and therefore reproduction. However no teratogenic effects have been observed. Adequate data on the carcinogenicity of thiocarbamates are not available.

| AC Profuse 800 EC Herbicide | TOXICITY | IRRITATION |
|--|--|--|
| | Not Available | Not Available |
| prosulfocarb | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[2] | Eye (rabbit): slight - mild * |
| | Inhalation(Rat) LC50: >4.7 mg/L4h ^[2] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Oral (Rat) LD50: 1820 mg/kg ^[2] | Skin (rabbit): slight - mild * |
| | | Skin: no adverse effect observed (not irritating) ^[1] |
| Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | | |

| | |
|--------------|--|
| PROSULFOCARB | <p>NOEL (2 y) for rats 0.5 mg/kg daily; (18 months) for mice >65 mg/kg daily NOEL: for subchronic toxicity studies in rats and dogs 1-10 mg/kg daily * No-teratogenic in rats and rabbits; non-mutagenic in the Ames test *</p> <p>The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.</p> <p>In mammals, fatty acid elongation greater than C18 also occurs, primarily on the endoplasmic reticulum, and utilizes CoA derivatives, as is found in plants. In mammals, long-chain fatty acids are important for membrane phospholipids and for neural growth and myelination.</p> <p>The acetanilide and thiocarbamate herbicides are relatively non-toxic to mammals but some effects have been noted. Molinate, a thiocarbamate, has caused testicular lesions in rats with a single dose, after sulfoxidation within the organism. The lesion was characterized by failed spermiation and phagocytosis of spermatids. In a 2-year rat study, metolachlor, an acetanilide, caused the wasting of testicles at doses of 150 mg/kg/day. Acetochlor has also been shown to cause testicular toxicity in male dogs given 10 and 50 mg/kg/day with a decrease in testes weight, atrophy and degeneration of seminiferous tubules and hypospermia. There were also effects on the kidney and severe neurological effects at 50 mg/kg/day consisting of abnormal head movements, stiffness and rigidity of hind limbs, ataxia tremor and other symptoms. These effects were accompanied by histopathological findings in the vermis cerebellum. The toxic effect of the sulfoxide metabolite of molinate was attributed to inhibition of esterase activity, which decreased plasma and testicular testosterone concentrations. However, this metabolite seems to be selectively produced in rodents and is not found in other mammals, including humans. No connection has ever been made between the toxic effects of acetanilides and thiocarbamates on mammals and inhibition of VLCFAs. However, very-long-chain polyunsaturated fatty acids (>24) are normally found in excitatory tissues, and myelin-deficient mouse mutants have very low fatty acid elongation activity. In addition, very-long-chain fatty acids are highly important in rat sperm maturation. During their transit from the caput to the cauda segments of the epididymis, rat spermatozoa lipid content and composition change significantly. The proportions of oleate and linoleate fatty acids decrease and there is an increase in the longer-chain fatty acids (C20 – C24) as well as the uncommon long-chain polyenoic fatty acids of the n-9 series. It might be highly informative to determine whether these two classes of herbicides inhibit very-long-chain fatty acid biosynthesis in mammals as well as in plants, and to see whether there is any connection between the mammalian toxicity of these chemicals and very-long-chain fatty acid synthesis..</p> |
|--------------|--|

AC Profuse 800 EC Herbicide

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

Prosulfocarb is a herbicide of moderate mammalian toxicity. In repeat dose dietary studies in rats the predominant effects observed in treated animals were reduced food consumption and reduced bodyweight which were accompanied, at high dose levels, by evident target organ toxicity. However, at lower dose levels reductions in food consumption and body weight were not accompanied by any other significant signs of toxicity.

The dermal absorption of 14C-prosulfocarb from an 80% (w/v) EC formulation ("Boxer") and 1/40 aqueous dilution has been assessed in three dermal absorption studies (in vivo absorption in rat, in vitro absorption in rat and in vitro absorption in human). In the in vivo rat study, approximately 7% and 25% of the applied dose for the concentrate and the spray dilution, respectively were absorbed over 24 hrs (amount retained in the skin samples were included in these values). In the in vitro rat study approximately 37% and 87% of the applied dose for the concentrate and the spray dilution, respectively were absorbed over 24 hrs, and in the in vitro human study approximately 0.97% and 11% of the applied dose for concentrate and the spray dilution, respectively were absorbed over 24 hrs (amount retained in the skin samples were included in this values). It is estimated that the likely dermal absorption of prosulfocarb in man equates to approximately 0.2% for the concentrate and 3.2% for the a.i. when diluted in the spray solution

In a subchronic 90 day neurotoxicity study Wistar rat showed no adverse effects on cholinesterase activity and slight reduced bodyweights (11%) at the highest dose level, 200 mg/kg bw/day. In gavage dosed Sprague Dawley rats adverse effects on cholinesterase activity together with clinical signs were noted at 200 mg/kg bw/day and adverse reductions in body growth were noted at 50 mg/kg bw/day and above.

Prosulfocarb was tested up to maximum concentration of 15 ug/ml and 50 ug/ml in the presence and absence of S9-mix respectively. Minimum survival levels, compared to the solvent control cultures, of 11% and 12% were observed in cultures treated with prosulfocarb in the presence and absence of S9-mix, respectively. As an overall conclusion on neurotoxicity, prosulfocarb showed no potential to produce acute delayed neurotoxicity when tested in White leghorn hens. Regarding acute/subchronic neurotoxicity, prosulfocarb showed potential to inhibit cholinesterase activity when tested in rats at high doses. A NOAEL for acute cholinergic effects was set at >850 mg/kg bw. A NOAEL for chronic cholinergic effects was set at 40 mg/kg bw/day.

Isolated increases in mutant frequency were observed in cultures treated with prosulfocarb in the presence and absence of S9-mix. Although certain of these increases achieved statistical significance, they were all small in magnitude (less than twice control values), showed no consistent dose relationship and were not reproduced at similar concentrations or levels of toxicity in other experiments. They were therefore considered not to be of biological significance and the study did not meet the criteria for a positive response in this assay.

The potential genotoxicity of prosulfocarb has been investigated in an appropriate battery of tests *in vitro* and *in vivo*. Tests for gene mutations (Ames test, Mouse lymphoma assay), chromosomal aberrations (Cytogenetic assay in human lymphocytes) and DNA effects (Unscheduled DNA synthesis) were conducted *in vitro*. A test for chromosomal aberration (bone marrow micronucleus in the mouse) was also conducted *in vivo*. All tests were negative except for a weak positive response in the presence of an S-9 activation system noted in one mouse lymphoma multiple endpoint test (forward mutation assay) when tested at toxic doses. Overall, the weight of the evidence from the studies indicates that prosulfocarb does not pose an *in vivo* mutagenic or genotoxic concern to humans under normal conditions of use.

In an 18-month study with prosulfocarb increased incidence of lung adenoma in female mice was noted at the highest dose level (12% compared to 3% in controls). This incidence was not considered substance-related since this incidence was not statistically significant and within contemporaneous historical control value from the conducting laboratory. The majority of earlier studies (using the same strain of mouse either in-house had been of 24-months duration and in these studies the earlier incidence of lung adenomas was between 10-18% whereas the incidence in the few 18 month studies was lower (2%).

The metabolic fate of the side chain of the prosulfocarb molecule can be postulated by analogy with the metabolic fate of the structurally-related thiocarbamate, EPTC. One or both of the propyl moieties in prosulfocarb are subjected to cleavage by N-dealkylation, similarly to the degradation established in the rat for EPTC.

[* The Pesticides Manual, Incorporating The Agrochemicals Handbook, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protection Council]

| | | | |
|-----------------------------------|---|--------------------------|---|
| Acute Toxicity | ✓ | Carcinogenicity | ✗ |
| Skin Irritation/Corrosion | ✓ | Reproductivity | ✗ |
| Serious Eye Damage/Irritation | ✓ | STOT - Single Exposure | ✗ |
| Respiratory or Skin sensitisation | ✓ | STOT - Repeated Exposure | ✗ |
| Mutagenicity | ✗ | Aspiration Hazard | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

| AC Profuse 800 EC Herbicide | Endpoint | Test Duration (hr) | Species | Value | Source |
|-----------------------------|---------------|--------------------|---------------|---------------|---------------|
| | Not Available | Not Available | Not Available | Not Available | Not Available |

Continued...

AC Profuse 800 EC Herbicide

| prosulfocarb | Endpoint | Test Duration (hr) | Species | Value | Source |
|--|-----------|--------------------|-----------|---------|--------|
| | EC50 | 48h | Crustacea | 1.3mg/l | 2 |
| | EC50(ECx) | 48h | Crustacea | 1.3mg/l | 2 |
| | LC50 | 96h | Fish | 4.7mg/l | 2 |
| Legend: <i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</i> | | | | | |

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

for prosulfocarb:

log Kow: 4.65 (25 C)

Environmental Fate:

Plants: Hydrolytic decomposition occurs and the thiol group is split off, giving mercaptan, carbon dioxide and dipropylamine.

Soil and water: In soil undergoes hydrolytic decomposition DT50 10-35 d

Ecotoxicology

Birds: No-effect level (5 d) for mallard ducks 3160, bobwhite quail 1780 mg/kg

Fish LC50 (96 h): bluegill sunfish 4.2, rainbow trout 1.7 mg/l

Daphnia EC50 (48 h) 1.4 mg/l

for thiocarbamates:

Environmental fate: Thiocarbamates are volatile and will therefore evaporate from soil. Leaching and lateral movement in the soil may take place because of water-solubility. Some photodegradation may occur.

Factors that influence biodegradation in soil include volatility, soil type, soil moisture, adsorption, pH, temperature, and photodegradation, all of which make it unlikely that long-term contamination of the soil will occur. In plants thiocarbamates are rapidly metabolised in typical oxidation reaction, e.g., thiol sulfoxidation to the corresponding sulfoxides, reactive intermediates that are capable of reacting with sulfhydryl groups to form conjugates. On hydrolysis mercaptans, carbon dioxide and alkylamines may be formed. Soil microorganisms also contribute significantly to the disappearance of thiocarbamates from the soil. In microorganisms and plants thiocarbamates undergo hydrolysis followed by transthiolation and sulfoxidation to form carbon dioxide and compounds that enter the metabolic pool. From limited evidence it appears that thiocarbamates and breakdown products can affect the enzyme activities, respiration and nitrification of soil microorganisms at dose levels of the order of 10 mg/kg dry soil or more.

Absorption of light causes the breakage of the carbonyl C-S bond producing two radicals. These can combine with protons from the solvent giving the formamide and mercaptan. The formamide is further degraded by ultraviolet radiation (UVR) to the dialkylamine by the elimination of carbon monoxide. Collision of two mercaptan radicals would lead to the formation of a disulfide. Because the sulfur-sulfur bond is quite susceptible to photolysis, continued exposure to UVR would result in a return to separate mercaptan radicals, and the possible reformation of the disulfide. Changes in the availability of protons could influence the concentrations of mercaptan and disulfide formed.

Ecotoxicity: The acute toxicity of thiocarbamates for fish is of the order of 5-25 mg/l water. There seems to be little or no risk for birds or honeybees.

for dithiocarbamates:

Environmental fate:

Dithiocarbamates with hydrophilic groups form water-soluble, heavy-metal complexes, while some of the dithiocarbamate metal complexes used as fungicides are insoluble in water but soluble in non-polar solvents. Alkylene bisdithiocarbamates (containing two donor CS₂ groups), which form polymeric chelates, are insoluble in both water and non-polar solvents

Information on the environmental impact of dithiocarbamates with respect to persistence and bioaccumulation in different species and food chains is limited.

Available information suggests that these compounds are degraded in the presence of moisture, oxygen, etc. to form a number of compounds, some of which are toxicologically important.

Soil organisms are capable of metabolising dithiocarbamates; breakdown products appear to affect enzyme activities, respiration and nitrification at dose levels of the order of 10 mg/kg dry soil or more.

Dithiocarbamates produce an isothiocyanate radical (-N=C=S) in fungi and other microorganisms; this inactivates SH groups in amino acids contained within individual cells, thus producing biocidal activity.

Ecotoxicity:

Generally dithiocarbamates have an LC50 of less than 1 mg/l for invertebrates (Daphnia) and between 1 and 4 mg/l for algae (Chlorella). The acute toxicity in fish is higher. The sac fry and early fry stages of rainbow trout have a higher sensitivity than other early life stages and embryotoxic and teratogenic effects have been induced by certain dithiocarbamates. Bioaccumulation, however, is low (bioconcentration factor <100). Several dithiocarbamates have been shown to affect testicular development and function and to cause nerve fibre degeneration in domestic fowl. General information on the influence of dithiocarbamates on honey-bees is not generally available.

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|--------------|-------------------------|------------------|
| prosulfocarb | HIGH | HIGH |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|--------------|--------------------------|
| prosulfocarb | MEDIUM (LogKOW = 4.2348) |

Continued...

Mobility in soil

| Ingredient | Mobility |
|--------------|------------------|
| prosulfocarb | LOW (KOC = 5621) |



SECTION 13 Disposal considerations

Waste treatment methods

| | |
|------------------------------|--|
| Product / Packaging disposal | <ul style="list-style-type: none">Recycle wherever possible or consult manufacturer for recycling options.Consult State Land Waste Authority for disposal.Bury or incinerate residue at an approved site.Recycle containers if possible, or dispose of in an authorised landfill. |
|------------------------------|--|

SECTION 14 Transport information

Labels Required

| | |
|------------------|--|
| |  |
| Marine Pollutant |  |
| HAZCHEM | •3Z |

Land transport (ADG)

| | | | |
|------------------------------------|---|----------------------|--|
| 14.1. UN number or ID number | 3082 | | |
| 14.2. UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains prosulfocarb) | | |
| 14.3. Transport hazard class(es) | Class | 9 | |
| | Subsidiary Hazard | Not Applicable | |
| 14.4. Packing group | III | | |
| 14.5. Environmental hazard | Environmentally hazardous | | |
| 14.6. Special precautions for user | Special provisions | 274 331 335 375 AU01 | |
| | Limited quantity | 5 L | |

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).

- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

Air transport (ICAO-IATA / DGR)

| | | | |
|----------------------------------|---|----------------|--|
| 14.1. UN number | 3082 | | |
| 14.2. UN proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (contains prosulfocarb) | | |
| 14.3. Transport hazard class(es) | ICAO/IATA Class | 9 | |
| | ICAO / IATA Subsidiary Hazard | Not Applicable | |
| | ERG Code | 9L | |
| 14.4. Packing group | III | | |

| | | |
|------------------------------------|---|--------------------|
| 14.5. Environmental hazard | Environmentally hazardous | |
| 14.6. Special precautions for user | Special provisions | A97 A158 A197 A215 |
| | Cargo Only Packing Instructions | 964 |
| | Cargo Only Maximum Qty / Pack | 450 L |
| | Passenger and Cargo Packing Instructions | 964 |
| | Passenger and Cargo Maximum Qty / Pack | 450 L |
| | Passenger and Cargo Limited Quantity Packing Instructions | Y964 |
| | Passenger and Cargo Limited Maximum Qty / Pack | 30 kg G |

Sea transport (IMDG-Code / GGVSee)

| | | |
|------------------------------------|---|----------------|
| 14.1. UN number | 3082 | |
| 14.2. UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains prosulfocarb) | |
| 14.3. Transport hazard class(es) | IMDG Class | 9 |
| | IMDG Subsidiary Hazard | Not Applicable |
| 14.4. Packing group | III | |
| 14.5. Environmental hazard | Marine Pollutant | |
| 14.6. Special precautions for user | EMS Number | F-A , S-F |
| | Special provisions | 274 335 969 |
| | Limited Quantities | 5 L |

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|--------------|---------------|
| prosulfocarb | Not Available |

14.7.3. Transport in bulk in accordance with the IGC Code

| Product name | Ship Type |
|--------------|---------------|
| prosulfocarb | Not Available |

SECTION 15 Regulatory information

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

prosulfocarb is found on the following regulatory lists

- Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
- Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Additional Regulatory Information

Not Applicable

National Inventory Status

| National Inventory | Status |
|---|-------------------|
| Australia - AIIC / Australia Non-Industrial Use | No (prosulfocarb) |
| Canada - DSL | No (prosulfocarb) |
| Canada - NDSL | No (prosulfocarb) |
| China - IECSC | No (prosulfocarb) |

| National Inventory | Status |
|-------------------------------|---|
| Europe - EINEC / ELINCS / NLP | Yes |
| Japan - ENCS | No (prosulfocarb) |
| Korea - KECI | No (prosulfocarb) |
| New Zealand - NZIoC | No (prosulfocarb) |
| Philippines - PICCS | No (prosulfocarb) |
| USA - TSCA | No (prosulfocarb) |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | No (prosulfocarb) |
| Vietnam - NCI | Yes |
| Russia - FBEPH | No (prosulfocarb) |
| Legend: | <i>Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</i> |

SECTION 16 Other information

| | |
|---------------|------------|
| Revision Date | 10/03/2023 |
| Initial Date | 05/12/2018 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|---|
| 5.1 | 20/08/2021 | Classification change due to full database hazard calculation/update. |
| 6.1 | 10/03/2023 | Classification change due to full database hazard calculation/update. |

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit,
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration

- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers

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- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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