




## Safety Data Sheet

### BRAWLER 800 EC - Reg. No: L 10190 (Act No 36 of 1947)

Date of issue: 19/01/2017

| 1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER                |   |
|--|---|
| Product name:  | BRAWLER 800 EC  |
| Other means of identification:   | Prosulfocarb 800 g/L EC   |
| Recommended use:   | Crop protection product, herbicide.   |
| Restrictions on use:   | For use as an Agricultural remedy only.   |
| UN No:   | 3082  |
| Distributed by:  | MERIDIAN AGRITECH<br>P O BOX 436<br>MODDERFONTEIN<br>TEL 011 8228509 FAX 0866901386<br>MOBILE: 0834006056<br>www.agritech.co.za   |
| Emergency Number:  | POISON CENTRE (UNITAS HOSPITAL)<br>012 664 1100<br>WESTERN CAPE POISONS TELEPHONE SERVICE<br>(OR POISONS HELPLINE): 0861 555 777<br>RAPID SPILL RESPONSE 0800 775 3305<br>GRIFFON POISON CENTRE: 082 446 8946   |
| Chemical Name:   | S-benzyl dipropylthiocarbamate  |
| 2) Classification of the substance / mixture:                                    |   |
| Classification of the product is based on the co-formulants listed in section 3. | According to Directive 67/548/EEC or 1999/45/EC<br>N; Xi<br>R50/53<br>S60<br>S61<br>Full text of R and S-phrases: see section 15.   |
| Label elements   |    <p>Xi – Irritant                      Health Hazard      N – Dangerous for the environment</p> |
| Hazards Identification:  |   |
| Health effects: eyes:  | Causes irritation   |
| Health effects: skin:  | Causes irritation   |
| Health effects: ingestion  | Harmful if swallowed  |
| Health effects: inhalation   | Harmful if inhaled  |
| 3) COMPOSITION / INFORMATION ON INGREDIENTS:                                     |   |
| Mixture: preparation based on Prosulfocarb                                       |   |

| Chemical name                               | % composition | CAS No.    | EC No.    | Classification according to Regulation EC 1272/2008 (CLP)   | Classification according to Directive 199/45/EC |
|---|---------------|------------|-----------|---|---|
| Prosulfocarb                                | 80            | 52888-80-9 | 401-730-6 | Acute Tox. 4: H302: Harmful if swallowed<br>Skin Sens.1: H317: May cause an allergic skin reaction.<br>Aquatic chronic 2: H411: Toxic to aquatic life with long lasting effects   | Xn<br>N<br>R22<br>R43<br>R51/53                 |
| Solvent naphtha (petroleum), heavy aromatic | 5.0 – 10.0    | 64742-94-5 | 265-200-4 | Asp. Tox. 1: H 304: May be fatal if swallowed and enters airways.<br>Skin Irrit. 2: H315: Causes skin irritation<br>STS SE 3: H336: May cause drowsiness or dizziness (Central Nervous system, Dizziness)<br>Aquatic chronic 2: H411: Toxic to aquatic life with long lasting effects<br>Flam. Liq. 3: H 226: Flammable liquid and vapour.  |   |
| Soybean oil, epoxidised                     | 5.0 – 10.0    | 8013-07-08 | 232-391-0 | Skin Irrit. 2: H315: Causes skin irritation   | -   |
| Ethoxylated polyarylphenol                  | <5.0          | 99734-09-5 | -         | Aquatic Chronic 3: H412: Harmful to aquatic life with long lasting effects<br><br>Aquatic Chronic 2: H411: Toxic to aquatic life with long lasting effects  | -   |
| Calcium dodecylbenzenesulphocate            | 5.0 – 10.0    | 26264-06-2 | 247-557-8 | Skin Irrit. 2: H315: Causes skin irritation.<br>Eye Dam. 1: H318: Causes serious eye damage.<br>Aquatic Chronic 4: H413: May cause long lasting harmful effects to aquatic life.<br>Acute Tox. 4: H302: Harmful if swallowed.<br>Acute Tox. 4: H312: Harmful in contact with skin.<br>Acute Tox. 4: H332: Harmful if inhaled<br>Aquatic chronic 3: H412: Harmful to aquatic life with longlasting effects<br>Eye Irrit. 2: H 319: Causes serious eye irritation |   |

Full text of R and S-phrases: see section 15.

#### 4) First Aid Measures:

##### Inhalation:

Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and at rest. If breathing is shallow or has stopped ensure airway is clear and apply

|  |  |
|--|--|
| <p><b>Skin contact:</b></p> <p><b>Eye contact:</b></p> <p><b>Ingestion</b></p> <p><b>Most important symptoms and effects, acute and delayed:</b></p> <p><b>Indication of immediate medical attention and special treatment needed: Advice to physician</b></p> | <p>resuscitation. <b>Seek medical assistance immediately.</b></p> <p>Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Do not rub skin. Seek medical assistance if irritation persists. Wash contaminated clothing before re-use.</p> <p>Flush eyes with plenty of water for 15 minutes holding eyelids open. Remove contact lenses, <b>Seek medical assistance immediately.</b></p> <p>Never give anything by mouth to an unconscious person. <b>Do not induce vomiting.</b> For advice, contact the National Poisons Centre. <b>Seek medical assistance immediately.</b> Contains petroleum distillates and/or aromatic solvents</p> <p>None known</p> <p>No specific antidote known. Treat symptomatically and supportively. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.</p>  |
| <p><b>5) Fire-Fighting Measures:</b></p>   |  |
| <p><b>Flash point:</b></p> <p><b>Extinguishing Media:</b></p> <p><b>Unsuitable extinguishing media:</b></p> <p><b>Fire Fighting:</b></p>   | <p>64 °C</p> <p>Small fires: Water fog or fine spray, alcohol-resistant foam, carbon dioxide or dry chemical.<br/>Large fires: Alcohol-resistant foam</p> <p>Do not use high volume water jet, due to contamination risk.</p> <p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal.<br/>Avoid inhaling hazardous vapours and fumes from burning materials. Beware of vapours accumulating to form explosive concentrations. Vapours can accommodate in low areas. Remove all sources of ignition. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways.<br/>Pay attention to flash back</p> <p>Generating poisonous and corrosive fumes.</p> <p><b>UNUSUAL FIRE OR EXPLOSION HAZARDS:</b><br/>Exposure to combustion products may be a health hazard.</p> |
| <p><b>Protective clothing:</b></p>   | <p>Full protective clothing and self-contained breathing apparatus</p>   |
| <p><b>6) Accidental Release Measures:</b></p>  |  |
| <p><b>Personal precautions:</b></p> <p><b>Occupational spill:</b></p>  | <p>Wear the appropriate safety clothing and eye / face protection. For personal protection see Section 8. Keep people away from, and upwind of, the spill or leak. Beware of vapour accumulating to form explosive concentrations. Vapour can accumulate in low areas. Remove all sources of ignition.<br/>Pay attention to flashback.</p> <p>Wear protective clothing. Clear area of unprotected</p>  |

personnel. Contain and absorb liquid spills with an inert material such as sand, earth, diatomaceous earth or vermiculite, remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in labelled waste containers for later disposal. Wash area with water and detergent and absorb with further inert material. Heavily contaminated soil layers have to be dug out down to clean soil. If spill does enter waterways contact the local authority. For large spills, barricade the area and contact the manufacturer. Spilled product cannot be re-used and must be disposed of. If containers cannot be recycled, they should be disposed of together with the waste chemical.

**7) Handling & Storage:**

**Handling:** Use good personal hygiene. Avoid contact with skin and eyes. Use only in an area containing flame proof equipment. Take precautionary measures against static discharges.  
Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.  
**APPROVED HANDLER:** This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor.

**Storage:** Store in the original container tightly closed and in a locked, dry, cool, well-ventilated area away from foodstuffs, fertilisers, seeds, drink, pharmaceuticals or cosmetics. Store in compliance with local regulations. Protect from excessive heat and cold. Keep away from children or uninformed persons. Keep away from combustible material. Store in an area equipped with sprinklers. No smoking. Keep away from sources of ignition.

**8) Exposure Control / Personal Protection:**

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Components with workplace control parameters

| Component                                   | Exposure limit(s)   | Type of exposure limit |
|---|---------------------|------------------------|
| Prosulfocarb                                | 4 mg/m <sup>3</sup> | 8 h TWA                |
| Solvent naphtha (petroleum), heavy aromatic | 17 ppm              | RCP-TWA                |

**PERSONAL PROTECTIVE EQUIPMENT:**

**Clothing:** Consult supplier to confirm that the equipment is suitable.  
Select chemically-resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots etc.). As appropriate: Impervious protective suit.

**Respiratory protection:** A particulate filter respirator may be needed until effective technical measures are installed. The protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in the case of an emergency spill, when the exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.  
Chemically resistant gloves.

|   |   |
|---|---|
| <b>Gloves:</b>  | Gloves should be certified to an appropriate standard. Gloves should have a minimum break-through time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.<br>Suitable material: Nitrile rubber. |
| <b>Eye protection:</b>  | Not usually required. Follow any site-specific eye protection policies.   |
| <b>Emergency eye wash:</b>  | Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.  |
| <b>9) Physical &amp; Chemical Properties:</b>                                 |   |
| <b>Form:</b>  | Liquid  |
| <b>Colour:</b>  | Clear   |
| <b>Odour:</b>   | Aromatic, characteristic  |
| <b>Odour threshold</b>  | Not determined  |
| <b>Solubility:</b>  | Miscible in water   |
| <b>pH:</b>  | 6-9 at 1 % w/w  |
| <b>Melting point / Freezing point</b>   | No data available   |
| <b>Initial boiling point and boiling range</b>                                | No data available   |
| <b>Flash point:</b>   | 64°C  |
| <b>Evaporation rate:</b>  | Not applicable  |
| <b>Flammability (solid, gas)</b>  | Not flammable   |
| <b>Upper/ lower flammability or explosive limits:</b>                         | No hazard is expected as long as the product is used appropriately and in accordance with the intended use.   |
| <b>Vapour pressure:</b>   | No data available   |
| <b>Vapour density:</b>  | No data available   |
| <b>Relative density:</b>  | Approximately 1.02 g/L  |
| <b>Partition coefficient: n-octanol/water</b>                                 | No data available   |
| <b>Auto-ignition temperature:</b>   | No data available   |
| <b>Viscosity:</b>   | Dinamic: 8.5 mPa.s at 40°C, Kinematic: 8-9 mm <sup>2</sup> /s   |
| <b>10) Stability &amp; Reactivity:</b>  |   |
| <b>Reactivity:</b>  | No hazardous reactions known. Hazardous polymerisation does not occur. Combustion or thermal decomposition will evolve toxic and irritating vapours.  |
| <b>Stability:</b>   | When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Avoid strong basic, acidic or oxidising materials.  |
| <b>Hazardous decomposition product(s):</b>                                    | None under normal conditions of storage and of use. When heated to decomposition, irritant or dangerous fumes may be emitted.   |
| <b>Conditions to avoid:</b>   | No data available   |
| <b>Incompatible materials:</b>  | No data available   |
| <b>11) Toxicological Information: Based on data for a similar formulation</b> |   |
| Acute Oral  | : LD50 > 2 000 mg/kg, rat.<br>GHS classification: None  |
| Acute Dermal  | : LD50 > 4 000 mg/kg, rabbit.<br>GHS classification: None   |
| Acute Inhalation  | : > 4.7 mg . L, 4h<br>GHS classification: None  |
| Aspiration toxicity:  | Aspiration hazard if swallowed: Can enter lungs and cause damage.<br>GHS classification: Category 1   |

Skin irritation: Rabbit: Mild irritant  
GHS classification: Category 2

Eye irritation : Rabbit: Moderate irritant  
GHS classification: Category 2B

Sensitization : Guinea pig: Caused sensitization on laboratory animals.  
GHS classification: Category 1

Mutagenicity: The statement has been derived from the properties of the active ingredient. Tests revealed no genotoxic potential.

Carcinogenicity: The statement has been derived from the properties of the active. Tests revealed no indication of a carcinogenic effect.

Reproductive toxicity: The statement has been derived from the properties of the active. Tests revealed no indication of a fertility impairing effect.

Teratogenicity: The statement has been derived from the properties of the active. Tests revealed no indication of developmental toxic effects at dosage rates that were not toxic to the parent animals.

Repeated dose toxicity: The statement has been derived from the properties of the active. Tests revealed no substance-specific organ toxicity after repeated administration to animals.

#### 12) Ecological Information: Based on technical material

Bees : LD<sub>50</sub> (48 h) (contact) >79 µg/bee; (oral) 103 µg/bee.

Birds : Acute oral LD<sub>50</sub> for bobwhite quail >2250 mg/kg. LC<sub>50</sub> for mallard ducks >5620 mg/kg; NOEC for mallard ducks ≥1000 mg/kg.

Fish : LC<sub>50</sub> (96 h) for bluegill sunfish 4.2, rainbow trout 1.7 mg/l.

Daphnia : LC<sub>50</sub> (48 h) 1.3 mg/l.

Algae : EC<sub>50</sub> (96 h) for *Scenedesmus subspicatus* 0.11 mg/l.

Worms : LC<sub>50</sub> 144 mg/kg.

#### Persistence and degradability:

In soil, undergoes microbial decomposition, DT<sub>50</sub> 12–49 d (21.5 °C, aerobic). Prosulfocarb is not persistent in soil.

Stability in water: Degradation half life: 159 – 279 days. Prosulfocarb is persistent in water.

Mobility: Prosulfocarb has slight mobility in soil.

Bioaccumulation: Prosulfocarb bioaccumulates.

#### Other adverse effects:

Additional ecological information: GHS classification: Category 1

#### 13) Disposal Considerations:

**Waste Disposal:** Do not contaminate ponds, waterways or ditches with any chemical or used container. Do not dispose of waste into the sewer. Where possible, recycling is preferable to disposal or incineration. If recycling is not practicable, dispose of in accordance with local and national regulations

Do not contaminate water, food or feed by disposal.

**Container Disposal:** Refer to the product label for instructions.

Empty the remaining contents. Triple rinse the container. Empty containers must be taken to an approved waste handling site for recycling or disposal.

If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.

Do not transport if this container is damaged or leaking.

#### 14) Transportation Information:

UN NUMBER: 3082

Road Transport ADR/ RID:

Class: 9

Packaging group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prosulfocarb and aromatic hydrocarbons)

Environmental hazards: Environmentally hazardous

Special precautions for user: None known.

Maritime Transport IMDG / IMO:

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Labelling no: 9

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prosulfocarb and aromatic hydrocarbons)

MARINE POLLUTANT

Air (ICAO / IATA):

Class: 9 Miscellaneous Dangerous Goods

Packaging group: III

Labelling no: 9

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prosulfocarb and aromatic hydrocarbons)

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): NA

### 15) Regulatory Information:

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

To avoid risks to man and the environment, comply with all instructions for use.

Advice on handling of the product can be found in sections 7 and 8 of this safety data sheet.

For the proper and safe use of this product, please refer to the approval conditions indicated in the product label.

#### **Labelling according to EC directives:**

Hazardous components which must be listed on the label: Prosulfocarb

#### **Symbol(s):**

Xi : Irritant

N : Dangerous for the environment.

#### **R-phrases(s):**

R38: Irritating to skin

R43: May cause sensitisation by skin contact.

R50/53: Very toxic to aquatic organisms, may cause long – term adverse effects in the aquatic environment.

#### **S-phrases(s):**

S2 - Keep out of reach of children.

S13 – Keep away from food, drink and animal feeding stuffs.

S20/21 – When using, do not eat drink or smoke.

S35 – This material and its container must be disposed of in a safe way.

S36/37 – Wear suitable protective clothing and gloves.

S57 - Use appropriate containment to avoid environmental contamination.

S60 - This material and its container must be disposed of as hazardous waste.

S61- Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Note: The mixture is classified as dangerous according to directive 1999/45/EC

### 16. Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

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