

Safety Data Sheet (SDS) GRA500 EC/01

According to UN GHS 9th Ed

Revision Date: 2023/05/25

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Version: 1.3

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **GRAB 500 EC**

Additional information: Product code GRA500 EC/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Insecticide.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Aspiration hazard (Category 1)	H304
Acute toxicity oral, dermal (Category 4)	H302+H312
Serious eye damage (Category 1)	H318
Acute toxicity inhalation (Category 3)	H311
Germ cell mutagenicity (Category 2)	H341
STOT RE 1	H372
STOT SE 3	H336
Hazardous to the aquatic environment (Acute 1)	H400
Hazardous to the aquatic environment (Chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: May be fatal if swallowed and enters airways.

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Label elements

Hazard pictograms:



Signal Word: DANGER

Hazard Statements: H302+H332 Harmful if swallowed or in contact with skin. H304 May be fatal if swallowed and enters airways. H318 Causes serious eye damage. H331 Toxic if inhaled. H340 May cause genetic defects. H336 May cause drowsiness or dizziness. H372 Causes damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read carefully and follow all instructions. P201 Obtain special instruction before use. P260 Do not breathe mist/ vapours/ spray. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P316 IF SWALLOWED Get emergency medical help immediately. P302+P352 IF ON SKIN: wash with plenty of water. P304+P340 IF INHALED Remove person to fresh air and keep comfortable for breathing. P305+P354+P338 IF IN EYES Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P308+P316 IF exposed or concerned: Get emergency medical help immediately. P391 Collect spillage.

Special labelling of certain mixture: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Fenthion	55-38-9	40-50%	Acute toxicity oral, dermal (Category 4) H302+H312. Acute toxicity inhalation (Category 3) H331. Mutagenicity (Category 2) H341. STOT RE 1 H372. Aquatic acute 1 H400. Aquatic chronic 1 H410 M=100
	200-231-9		
Hydrocarbons, C10, aromatics, <1% naphthalene	918-811-1	40-50%	Aspiration hazard (Category 1) H304. STOT SE 3 H336. Aquatic chronic 2 H411.
	26264-06-2		
Calcium dodecylbenzene sulphonate	26264-06-2	1-10%	Acute toxicity oral (Category 4) H302. Skin irritation (Category 2) H315. Serious eye damage (Category 1) H318.
	247-557-8		
2-Ethylhexan-1-ol	104-76-7	1-10%	Skin irritation (Category 2) H315. Eye irritation (Category 2) H319. Acute toxicity inhalation (Category 4) H332. STOT SE 3 H335.
	203-234-3		

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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation occurs.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: Toxic if inhaled.

Ingestions: If ingested, material may be aspirated into the lungs and cause chemical pneumonitis.

Skin contact: May cause an allergic skin reaction.

Eye contact: Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed:

Fenthion: Fenthion is an organophosphorus compound, and as such it is a cholinesterase inhibitor.

Symptom of poisoning: Mild intoxication causes headache, blurred vision, weakness, sweating, mild chest pain, nausea and vomiting. Severe intoxication causes cyanosis (blueness of the skin, as from lack of oxygen), muscular twitching, spasms, miosis (pinpoint pupils) and respiratory paralysis.

Treatment: Basic aid, decontamination, symptomatic treatment and if necessary, administration of antidote.

Antidote: Atropine sulphate, possibly in conjunction with Toxogonin or obidoxime (PAM). Monitor respiratory, cardiac, and central nervous system function. Monitor red blood cell and plasma cholinesterase levels. Administer oxygen if necessary. Watch for pulmonary oedema and delayed neurological symptoms.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Use an extinguishing agent suitable for the surrounding fire: use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

In the event of fire, the following may be released; smoke, fume, incomplete combustion products, oxides of carbon. Phosphorus pentoxide and sulphur dioxide may also be formed.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

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SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Do not inhale. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to section 8, Exposure Controls and Personal Protection.

For emergency responders: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Do not inhale. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to section 8, Exposure Controls and Personal Protection.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into well labelled container for disposal according to local regulations.

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid prolonged contact with concentrate. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Incompatible materials; combustible materials, reducing agents, acids, alkalis.

Specific end uses:

Use as directed. Use original container.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): No information available.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective OEL's if applicable. Ensure that eyewash stations and safety showers are proximal to the work-station location

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Wear appropriate clothing for task or operation. Keep working clothes separately.

Respiratory protection: Respiratory protection is required when ventilation is inadequate, or discomfort is experienced; use an approved air-purifying respirator. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid.

Colour: Brownish.

Odour: Mercaptan like odour.

Odour threshold: No information available.

pH (at concentration): No information available.

Melting point/range (°C): No information available.

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Boiling point/range (°C): No information available.

Flash point (°C): No information available.

Evaporation rate: No information available.

Flammability (solid, gas, liquid): Not applicable.

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Density (20°C): 1.172 g/cm³.

Water solubility (g/l) at 20°C: Soluble in water.

n-Octanol/Water partition coefficient: No information available.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity: No information available.

Physical hazards:

Explosive properties: None.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

Stable under normal storage conditions for 2 years.

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Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Do not expose to extreme temperatures.

Incompatible materials:

Incompatible with oxidation material and acids.

Hazardous decomposition products:

During fire carbon monoxide, phosphorus pentoxide and sulphur dioxide may be formed.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Information on toxicological effects:

Acute toxicity: GRAB 500EC

Acute oral LD₅₀ 481 mg/kg (based on calculation).

Dermal LD₅₀ 1193 mg/kg (based on calculation).

Inhalation LC₅₀ (4 h) 0.99 mg/ℓ aerosol/mists (based on calculation).

Fenthion

Acute oral LD₅₀ male and female 250 mg/kg.

Acute dermal LD₅₀ for male rats 586 mg/kg, female rats 800 mg/kg.

Acute inhalation LC₅₀ (4 h) for male and female rats 0.5 mg/ℓ aerosol.

Chronic toxicity: No information available.

Skin corrosion/irritation:

Fenthion

Not a skin irritant for rabbit.

Serious eye damage/irritation:

Fenthion

Not an eye irritant for rabbit.

Respiratory or skin sensitization:

Fenthion

Not a skin sensitizer for guinea pig.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity: No information available.

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STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Fenthion

Toxicity to fish: LC₅₀ (96h) for Golden orfe (*Leuciscus idus melanotus*) 2.7 mg/ℓ.

LC₅₀ (96 h) for Rainbow trout (*Oncorhynchus mykiss*) 0.83 mg/ℓ.

Aquatic invertebrate toxicity: EC₅₀ (48 h) for *Daphnia magna* 0.0057 mg/ℓ.

Algae toxicity: IC₅₀ (96 h) for Green algae (*Desmodesmus subspicatus*) 1.79 mg/ℓ.

Bacteria toxicity: EC₅₀ Activated sludge > 10000 mg/ℓ.

Bird toxicity: LD₅₀ for Bobwhite quail 7.2 mg/ℓ.

Persistence and degradability:

Not easily biodegradable. Bioconcentration factor 396-438.

Bioaccumulative potential:

No information available.

Mobility in soil

No information available.

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

Very toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

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	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3018	3018	3018
UN Proper shipping name:	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (Fenthion)	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (Fenthion)	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (Fenthion)
Transport hazard class:	6.1	6.1	6.1
Transport hazard pictograms:			
Packaging group:	III	III	III
Marine pollutant:	Yes	Yes	Yes
Special precautions for user:	Toxic material	Toxic material	Toxic material
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not required	Not required	Not required

Inland waterways: Not required.

Emergency response information: No information.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 9, 2021.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions: None.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No.

SECTION 16. OTHER INFORMATION

Indication of changes:

All sections

Relevant Classification and Hazard Statements:

Aquatic acute 1: Hazardous to the Environment (Acute 1)

Aquatic chronic 1: Hazardous to the Environment (Chronic 1)

STOT RE 1- Specific Target Organ Toxicity repeated exposure (Category 1)

STOT SE 3 Specific Target Organ Toxicity single exposure (Category 3)

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H302 Harmful if swallowed. H302+H332 Harmful if swallowed or in contact with skin. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H331 Toxic if inhaled. H332 Harmful if inhaled. H340 May cause genetic defects. H336 May cause drowsiness or dizziness. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.