BRENNO 700 SC SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **BRENNO 700 SC**
Other identifier: **Acetochlor + Atrazine + Terbuthylazine 700 SC**
Recommended use: Herbicide
Restrictions on use: Agriculture - farming

Supplier: **Villa Crop Protection (Pty) Ltd.**
Co. Reg. No.: 1992/002474/07
PO Box 10413,
Aston Manor, 1630, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: www.villacrop.co.za

Emergency telephone numbers:
24 Hr Transport / Spill emergency no:
(Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)
Griffon Poison Information Centre +27 82 446 8946
(Client: Villa Crop Protection)
Poisoning Emergency telephone numbers:
Griffon Poison Information Centre +27 82 446 8946
Poisons Information Centre +27 861 555 777

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	**Hazard categories**	**H-statements**
Health		
Oral	Acute Tox. 5	H303
Dermal	Acute Tox. 5	H313
	Skin Irrit. 2	H315
	Skin Sens. 1	H317
Eye	Eye Dam. 1	H318
Specific Target Organ Toxicity - Single Exposure	STOT - SE 3	H335
Carcinogenicity	Carc. 2	H351
Reproductive Toxicity	Repr. Tox. 2	H361f
Specific Target Organ Toxicity - Repeat Exposure	STOT - RE 2	H373
Environment		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

The most important adverse effects:
Physiochemical effects: None known

Human health effects:
May be harmful if swallowed (Acute Tox. 5).
May be harmful in contact with skin (Acute Tox. 5).
Causes skin irritation (Skin Irrit. 2).
May cause an allergic reaction (Skin Sens. 1).
Causes serious eye damage (Eye Dam. 1).
May cause respiratory irritation (STOT SE 3).
Suspected of causing cancer (Carc 2).
Suspected of damaging fertility or the unborn child (Repr. Tox. 2).
May cause damage to organs (kidneys) through prolonged or repeated exposure (STOT RE 2).

Label elements:

Signal word: Danger

Hazard statements:
H303: May be harmful if swallowed.
H313: May be harmful in contact with skin.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H351: Suspected of causing cancer.
H361f: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs (Kidney).
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:
P203: Obtain, read and follow all safety instructions before use.
P260+P261: Do not breathe dust, fume, gas, mist, vapours and spray.
P264+P265: Wash hands thoroughly after handling. Do not touch eyes.
P271: Use only outdoors in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release into the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P317: IF SWALLOWED: Get medical help.
P302+P317+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap. Get medical help.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P317+P318: IF exposed or concerned, get medical advice.
P319: Get medical help if you feel unwell.
P321: Wash skin gently and thoroughly with water and non-abrasive soap.
P332+P317: If skin irritation occurs get medical help.
P333+P317: If skin irritation or rash occurs: Get medical help.
P337+P317: If eye irritation persists: Get medical help.
P362+P364: Take off contaminated clothing and wash it before reuse.
P391: Collect spillage.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local regulations.

Other hazards:
None known.

Toxicity:
Classification according to GHS: Category 5

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
Composition:

Chemical name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Atrazine	1912-24-9	21.34%	Skin Sens. 1 (H317) STOT - RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Terbuthylazine	5915-41-3	20.69%	Acute Tox. 4 (H302) STOT - RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Acetochlor	34256-82-1	24.48%	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Acute Tox. 4 (H332) STOT - SE 3 (H335) Carc. 2 (H351) STOT - RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Repr. Tox. 2 (H361f)
Benoxacor	98730-04-2	< 5 %	Skin Sens. 1 (H317) Aquatic Chronic 1 (H410)
Monoethylene Glycol	107-21-1	< 5 %	Acute Toxicity 4 (H302)
Tenphos 680N (Alkyl polyglycol ether carboxylic acid)	68954-89-2	< 5%	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)
Rhodasurf 860P (Alcohol ethoxylates)	78330-20-8	< 5 %	Acute Tox. 4 (H302) Eye Dam. 1 (H318)
Rhodacil 70B (Dodecylbenzen sulfonate)	26264-06-02	< 5 %	Flam. Liq. 3 (H226) Acute Tox. 4 (H312) Skin Irrit. 2 (H315) Eye Dam 1 (H318) STOT - SE 3 (H335) STOT - SE 3 (H336) Aquatic Acute 3 (H402) Aquatic Chronic 2 (H411)
Soprophor CY/8 (Polyarylphenol ethoxylate)	99734-09-5	< 5 %	Aquatic Chronic 3 (H412)
Proxel GXL	2634-33-5 and 1310-73-2	< 5 %	Corr. to metals 1 (H290) Acute Tox. 4 (H302) Skin Corr. 1 (H314) Skin Sens. 1 (H317) Eye Dam. 1 (H318) STOT - SE 3 (H335)

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. If concerned, immediately consult a doctor.
Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. **Seek medical attention if irritation occurs.**
Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Obtain medical attention if irritation persists.**
Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**
Ingestion: Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor.

Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.
Anticipated acute effects: May be harmful if swallowed. May be harmful if in contact with skin. Causes skin irritation. May cause an allergic reaction. Causes serious eye damage. May cause respiratory irritation.
Anticipated delayed effects: Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (kidney) through prolonged or repeated exposure.
Most important symptoms / effects: Irritation effects on skin, eyes and mucous membranes are the most common reactions. Allergic skin reaction may occur. May cause skin sensitisation. Large ingestions can cause nausea, vomiting, abdominal distress and diarrhoea.
Advice to physician: Treat symptomatically and supportively. No signs and symptoms of triazine poisoning are known or expected in humans. When large amounts have been ingested, consider gastric lavage or administer activated charcoal with water.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use powder, foam, carbon dioxide or dry chemical for small fires and water fog or foam for large fires.
Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.
Specific hazards: This product will emit toxic fumes when burned, including carbon monoxide. May produce irritating or poisonous mists or other products of combustion.
Special fire-fighting procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Remain upwind of fire. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.
Personal protective equipment: Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with eyes. Do not breathe in spray mist or dust. Ventilate area of spill or leak, especially in contained areas.
Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.
Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.
Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water. This product is classified as very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs.
Methods and Materials for Containment: Contain spilled product by diking area with sand or earth.
Methods and Materials for Clean-up: Do not touch spilled material and keep out unprotected persons and animals. Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:
Precautions for safe handling: Avoid contact with skin and eyes. **BRENNO 700 SC** causes serious eye damage. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.
General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

Storage:
Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well- ventilated area. Do not store near heat, open flame, sources of ignition or hot surfaces. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.
Incompatible substances and mixtures: Refer to product label.
Packaging material: Plastic fluorinated containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration
No occupational exposure limits have been determined for the significant ingredients in this product.

Engineering Controls:
It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.
Personal Protective Equipment:
Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours.
Hand Protection: The use of chemically protective (impervious) gloves (PVC or neoprene groves) is required to prevent against skin contact.
Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.
Skin and Body Protection: Employees must wear appropriate protective (impervious) clothing, boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.
Emergency eyewash: 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Cream white colour liquid.
Odour: Triazine-like odour.
Odour threshold: Not available.
pH (1% aqueous dilution): 6.2.
Melting point: Not available.
Freezing Point: Not available.
Boiling Point: Not available.
Flash Point: Not applicable.
Flammability: Not flammable.
Upper / lower explosion limits: Not available.
Vapour Pressure (mm Hg): Not available.
Relative Vapour Density: Not available.
Density / Relative density: 1.11 g/mℓ
Solubility: Emulsifies in water.
n-octanol / water partition coefficient: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.
Reactivity: None known.
Possibility of hazardous reactions: Unlikely to occur.
Conditions to avoid: Extreme heat or exposure to flames.
Incompatible materials: Strong oxidizers, strong bases, strong reducing agents.
Hazardous decomposition products: Alcohols. carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Calculated according to GHS.
Oral LD_{50}: 2264.67 mg/kg (rat)
Dermal LD_{50}: 3719.72 mg/kg (rabbit/rat)
Inhalation LC_{50}: 10.61 mg/ℓ (rat)
Skin Irritation / Corrosion: Causes skin irritation.
Eye Damage / Irritation: Causes serious eye damage.
Skin Sensitization: May cause an allergic skin reaction.
Respiratory Sensitization: Not classified.
Reproductive cell mutagenicity: Not classified.
Carcinogenicity: Suspected of causing cancer.
Reproductive toxicity: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity – single exposure: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure: May cause damage to organs (kidney) through prolonged or repeated exposure.
Aspiration hazard: Not classified.
Chronic Effects: Not classified.
POTENTIAL ADVERSE EFFECTS:
Inhalation: May cause respiratory irritation.
Eye contact: Causes serious eye damage.
Skin contact: May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
Ingestion: may be harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

ECOTOXICITY DATA:
Active ingredients

Atrazine		
Fish:		
LC_{50} (96 h)	Rainbow trout	11 mg/l
	Guppies	4.3 mg/l
Daphnia:		
EC_{50} (48 h)		29 mg/l
Algae:		
EC_{50} (72 h)	*Scenesdesmus subspicatus*	0.043 mg/l
EC_{50} (96 h)	*Pseudokirchneriella subcapitata*	0.01 mg/l
Birds:		
Acute oral LD_{50}	Bobwhite quail	940 mg/kg
	Mallard ducks	> 2000 mg/kg
	Japanese quail	> 2000 mg/kg
Dietary LC_{50} (8d)	Japanese quail	> 5000 mg/kg diet
	Mallard ducks	> 1560 mg/kg diet
Bees:		
LD_{50} contact		> 100 ug/bee
LD_{50} oral		> 97 ug/bee
Worms:		
LC_{50} (14 d)	*Eisenia fetida*	> 78 mg/kg soil

Terbuthylazine		
Fish:		
LC_{50} (96 h)	Rainbow trout	2.2 mg/ℓ
	Mirror carp	> 5.7 mg/ℓ
Daphnia:		
EC_{50} (48 h)		≥ 69.3 mg/ℓ
Algae:		
EC_{50} (72 h)	*Scenedesmus subspicatus*	0.016 mg/ℓ
Birds:		
Acute oral LD_{50}	Ducks and Japanese quail	>2000 mg/kg
Dietary LC_{50} (8 d)	Ducks and Quails	> 5620 mg/kg
Bees:		
LD_{50} contact		> 200 µg/bee
LD_{50} oral		> 200 µg/bee
Worms:		
LC_{50} (14 d)	Earth worm	>1000 mg/kg

Acetochlor		
Fish:		
LC_{50} (96 h)	Rainbow trout	0.36 mg/ℓ
	Bluegill sunfish	1.3 mg/ℓ
	Sheepshead minnow	2.4 mg/ℓ
Daphnia:		
LC_{50} (48 h)		8.6 mg/ℓ
Algae:		
E_rC_{50} (72 h) (Recovery observed)	Green algae *(Selenastrum capricornutum)*	0.52 µg/ℓ
E_rC_{50} (5 d)	Diatoms *(Navicila pelliculosa)*	2.3 µg/ℓ
	Blue-green algae *(Anabaena flos-aquae)*	110 mg/ℓ
E_rC_{50} (72 h)	Marine algae *(Skeletonema costatum)*	21 µg/ℓ
Birds:		
Acute oral LD_{50}	Bobwhite quail	928 mg/kg
	Mallard ducks	>2000 mg/kg
Dietary LC_{50} (5 d)	Bobwhite quail & Mallard ducks	>5620 mg/kg
Bees:		
LD_{50} (48 h)	(contact)	>200 µg/bee
	(oral)	>100 µg/bee
Worms:		
LC_{50} (14 d)	Earthworms *(Eisenia foetida)*	211 mg/kg

ENVIRONMENTAL EFFECTS
Based on information for the active ingredient(s)

Plants:
Atrazine: In tolerant plants, Atrazine is readily metabolised to hydroxyatrazine and amino acid conjugates, with further decomposition of hydroxyatrazine by degradation of the side-chains and hydrolysis of the resulting amino acids on the ring, together with evolution of CO2. In sensitive plants, unaltered Atrazine accumulates, leading to chlorosis and death.
Terbuthylazine: Triazine-tolerant plants (e.g., maize) rapidly de-chlorinate Terbuthylazine to hydroxy-terbuthylazine. Various amounts of de-ethylated and hydroxy de-ethylated metabolites are produced, depending on the plant species.
Acetochlor: Rapidly absorbed and metabolised in germinating maize and soya beans. Is metabolised in intact plants by several metabolic routes, including hydrolytic/oxidative displacement of chlorine, N-dealkylation and glutathione displacement of chlorine, followed by formation of various sulphur-containing secondary catabolism products. In maize, major metabolites include oxanilic, sulfonic and sulfinyl acetic acids, and carbohydrate conjugates.
Animal:
Atrazine: In mammals, following oral administration, Atrazine is rapidly and completely metabolised, primarily by oxidative dealkylation of the amino groups and by reaction of the chlorine atom with endogenous thiols. Diaminochlorotriazine is the main primary metabolite, which readily conjugates with glutathione. More than 50% of the dose is eliminated in the urine and around 33% in the faeces within 24 h.
Terbuthylazine: In mammals, following oral administration, 72-84% is eliminated in the urine and

faeces within 24 h, and almost all within 48 h. A de-ethyl metabolite forms rapidly, followed by conjugates of products formed by oxidation of one methyl group of the *tert*-butyl moiety. All are rapidly excreted.
Acetochlor: Extensively metabolized and readily eliminated in the excreta of rats.
Persistence and degradability: Not determined.
Bio-accumulative potential: Not determined.
Mobility in soil:
Atrazine: Major metabolites under all conditions are desethylatrazine and hydroxyatrazine. *Field* DT_{50} of 16 to 1174 days (median 38.5 days), the longer values being from cold or dry conditions. *Water/sediment system DT50* of 14 to 20 days in water and 35 to 80 days in the whole system. *Under groundwater conditions* DT_{50} of 105 to 200 days, depending on the test system.
Terbuthylazine: In aerobic soils, dissipation is mainly due to microbial activity with the formation of metabolites by de-ethylation and hydroxylation, with eventual ring cleavage, and the formation of non-extractable residues (8 to 27% after 98 days). *Field* DT_{50} of 17.4 days. *Water-sediment systems* DT_{50} of 33–73 d in the whole system.
Acetochlor: Adsorbed by soil, with little leaching. Microbial degradation accounts for most loss from soil; DT_{50} 8 to 18 days. The major metabolites are water-soluble acids resulting from oxidative displacement of the chlorine (oxanilic acid), or from glutathione conjugation followed by catabolism to sulphur-containing acids, e.g., sulfonic and sulfinyl acetic acids
Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.
Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler www.croplife.co.za. Do not bury, burn, or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 3082
Road Transport ADR / ORD:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (**Atrazine** 225 g/ℓ + **Terbuthylazine** 225 g/ℓ + **Acetochlor** 250 g/ℓ).
Maritime Transport IMDG / IMO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (**Atrazine** 225 g/ℓ + **Terbuthylazine** 225 g/ℓ + **Acetochlor** 250 g/ℓ).
Marine pollutant (Y/N): Yes
Air Transport IATA / ICAO:
Class: 9
Packaging group: III
UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (**Atrazine** 225 g/ℓ + **Terbuthylazine** 225 g/ℓ + **Acetochlor** 250 g/ℓ).
Special / Environmental Precautions: Wedge drums tightly to avoid movement.
Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation for the mixture:
OHSA 1993 Regulations for Hazardous Chemical Substances.
Relevant information regarding restrictions: None.
EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)
Other national regulations: None.
Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 1, 5, 10, 20 and 25 litres fluorinated plastic containers, labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:
H226: Flammable liquid and vapour.

H290: May be corrosive to metals.
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
H316: Causes mild skin irritation.
H318: Causes serious eye damage.
H332: Harmful if inhaled.
H336: May cause drowsiness or dizziness.
H402: Harmful to aquatic life
H411: Toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.
IATA: International Air Transport Association.
IBC: International Bulk Chemical.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization.
LD_{50} value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.
OEL/RL: Occupational exposure limit-recommended limit.
TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.
ST/STEL: Short-term exposure limits.
Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT
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For detailed information on revisions, contact the Registration holder.