

Sharda International Africa (Pty) Ltd

(Co. Reg. No. 2010/002268/07)

P.O. Box 82021, Southdale, 2135, South Africa.

Tel: 031 764 3011,

Email: rsa.regn@shardaintl.com, Website: <http://www.shardaintl.com>

SECTION 1. Chemical product and company identification

Product identifier:

Identification as on the label/Trade name: Meta Super 600 SC

Additional information: Terbutylazine + S-metolachlor

Relevant identification uses of the substance and uses advised against:

Identified uses: Herbicide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Company name: Sharda International Africa (Pty) Ltd

Address: P.O. Box 82021, Southdale, 2135

Phone number.: 031-764-3011

Emergency telephone numbers:

UNITAS Hospital: 0800-111-9900

Tygerberg Hospital: 021-931-6129

Netcare 911: 082911

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Acute toxicity oral	H302 Harmful if swallowed
Inhalation	H332 Harmful if inhaled
Skin irritation	H317: May cause an allergic skin reaction,
Eye irritation / eye damage	H318: Causes serious eye damage
Reproductive	H340: May cause genetic defects
Carcinogenicity	H350 May cause cancer
Hazardous to the Environment	H400 + H401 Very toxic to aquatic life with long lasting effects

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: Harmful if swallowed. May cause an allergic skin reaction, causes skin irritation, causes eye irritation, causes serious eye damage, may cause genetic defects, May cause cancer

Label elements



Hazard pictograms:

Signal Word: Danger

Hazard Statements: H302: Harmful if swallowed, H317: May cause an allergic skin reaction, H315: Causes skin irritation, H320: Causes eye irritation, H318: Causes serious eye damage, H340: May cause genetic defects, H350: May cause cancer H400 + 401 – Very toxic to aquatic life with long lasting effects

Precautionary Statements:

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P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P261 + P271 Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. P264 + P280 Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P273 Avoid release to the environment. P304+P340, P312 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. P301+P312, P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. P302+P352, P321, IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see supplemental instructions on the administration of antidotes on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P362 Take off contaminated clothing and wash before reuse. P305+P351+P338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P391 Collect spillage

Special labelling of certain mixtures: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
			EC1272/2008
S-metolachlor	87392-12-9	9.45	Skin sensitization category 1 Aquatic acute category 1 Aquatic chronic category 1
Terbutylazine	5915-41-3	45.49	Acute toxicity category 4 oral STOT RE category 2 Aquatic acute category 1 Aquatic chronic category 1
1,2-ethanediol	107-21-1	0.41	Acute toxicity category 4 oral
(Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-[2,4,6-tris(1-phenylethyl)phenoxy]-, ammonium salt	119432-41-6	4.54	Eye irritation category 2 Aquatic chronic category 3
Poly(oxy-1,2-ethanediyl), α-[tris(1-phenylethyl)phenyl]-ω-hydroxy-	99734-09-5	4.5	Aquatic chronic category 3
Butanedioic acid	577-11-7	4.5	Skin irritation category 2 Eye damage category 1
Formaldehyde	50-00-0	0.5	Acute toxicity category 3 oral Acute toxicity category 3 dermal Skin corrosion category 1 B Skin sensitisation category 1 Acute toxicity category 3 inhalation Mutagenic category 2 Carcinogenic category 1 B

For full text of H statements see section 16

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:

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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 and consult a doctor.

In case of inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

In case of skin contact: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists obtain medical attention

In case of eye contact: Immediately flush eyes with clean water for at least 15-20 minutes. Lift eyelid (s) to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention

In case of ingestion: If the person is alert, rinse mouth thoroughly with water and administer activated charcoal. Do not give anything by mouth to an unconscious person. Seek medical attention or call a poison control centre for treatment advice if you feel unwell. Do NOT induce vomiting unless instructed to do so by a poison control centre or doctor

Most important symptoms and effects, both acute and delayed:

Anticipated acute effects: May cause an allergic skin reaction.

Anticipated delayed effects: May cause cancer

Most important symptoms/effects: None known.

Advice to physician: Treat symptomatically and supportively. If swallowed, administer activated charcoal. No specific antidote known

Indication of any immediate medical attention and special treatment needed:

Immediate medical attention is required if exposure to the product. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Use carbon dioxide, dry chemical powder or foam

SMALL FIRE: See above.

LARGE FIRE: See above.

Unsuitable extinguishing media: Water jet. Use a water jet only to cool heated containers

Specific hazards arising from the mixture:

Irritating or hazardous gases may be generated by thermal decomposition or combustion.

Special firefighting 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. Keep upwind. 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.

Advice for fire-fighters:

Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Keep all personal away. Avoid contact with eyes and skin. Do not breathe in fumes

For emergency responders: Alert firefighting personnel, evacuate unprotected personnel and animals. Do not breathe in fumes. Ventilate area of spill or leak, especially in contained areas. Avoid contact with eye and skin.

Protective equipment:

Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill.

Emergency procedures:

Alert fire-fighting personnel, evacuate unprotected personal and animals

Environmental precautions:

Prevent spilled product from entering sewers, waterways or ground water as the product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be immediately reported to the police and the Department of Water/Environmental Affairs.

Methods and materials for containment and cleaning up:

Material for containment and cleaning up:

Contain spilled product by diking area with sand, earth, vermiculite or clay.

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.

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 contact with skin and eyes. Ensure adequate ventilation during handling and use. Do not handle broken packages and containers 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 again.

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Conditions for safe storage, including incompatibilities:

Store in its original container in dry, cool, well-ventilated area. Avoid excessive heat and cold temperatures. Not to be stored next to foodstuffs, feed and water supplies. Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers.

Incompatible substances: Refer to product label

Packaging material: Plastic containers

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): None known

Biological exposure indices (BEI): None known.

Additional exposure limits under the conditions of use: None known.

Permissible concentrations:

Components	Exposure limits	Type of exposure limit	Source
Formaldehyde	0.75 ppm (ST) 2 ppm	8-hour (TWA)	CAL OSHA PEL
Ethylene glycol	10 ppm	8 – hour; 26 mg/m ³	MAK DFG

Exposure control:

Appropriate 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 OSHA PELs 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.

Hygiene measures:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Where there is 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

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.

Hand protection:

The use of chemically resistant gloves is recommended to prevent against skin contact.

Eye/face protection:

Wear a face shield when handling the concentrate and when applying the product. The use of safety goggles is recommended if a face shield is not used. Contact lenses are not protective eye devices.

Skin and body protection:

Employee must wear appropriate protective clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

Environmental exposure controls: Environmental manager must be informed of all major spillages.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:	White to off white liquid, suspension concentrate.
Odour:	Faint odour.
pH (1% aqueous dilution):	6.1 @ 20 °C.
Melting point:	Not available.
Freezing Point:	Not available.
Boiling Point:	Not available.
Flash Point:	Not available.
Flammability:	Not available.
Upper/lower explosion limits:	Not available.
Vapour Pressure (mm Hg):	Not available.
Relative Vapour Density:	Not available.
Density:	1.118 g/ml @ 20 °C.
Solubility:	Miscible.
n-octanol/water partition coefficient:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None known

Chemical stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Possibility of hazardous reactions: None known

Conditions to avoid: Extreme heat or cold temperatures.

Incompatible materials: Not available

Hazardous decomposition products: Combustion or thermal decomposition may produce toxic or irritant vapours.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

S-metolachlor	
Acute oral LD ₅₀ (rat)	2672 mg/kg
Acute dermal LD ₅₀ (rabbit)	>2000 mg/kg
Acute inhalation LC ₅₀ (4h) (rats)	>2910 mg/m ³
Skin irritation/ corrosion (rabbits)	Causes skin irritation
Eye damage / irritation (rabbits)	Causes serious eye damage
Respiratory or skin sensitization (guinea pigs)	Not classified
Germ cell mutagenicity	May cause genetic defects
Carcinogenicity	May cause cancer
Reproductive toxicity	Not classified
Specific Target Organ Toxicity STOT single exposure	Not classified
Specific Target Organ Toxicity STOT repeated exposure	Not classified
Aspiration hazard	No data available
Terbuthylazine	
Acute oral LD ₅₀ (rats)	1590 mg/kg
Acute dermal LD ₅₀ (rats)	>2000 mg/kg
Acute inhalation LC ₅₀ (4h) (rats)	>5.3 mg/ℓ air
Skin irritation/ corrosion (rabbits)	Causes skin irritation
Eye damage / irritation (rabbits)	Causes serious eye damage
Respiratory or skin sensitization (guinea pigs)	Not classified

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Germ cell mutagenicity	May cause genetic defects
Carcinogenicity	May cause cancer
Reproductive toxicity	Not classified
Specific Target Organ Toxicity STOT single exposure	Not classified
Specific Target Organ Toxicity STOT repeated exposure	Not classified
Aspiration hazard	No data available

SECTION 12. ECOLOGICAL INFORMATION

Anticipated behaviour of the chemical product in the environment /possible environmental impact/ecotoxicity:

S-metolachlor	
Acute toxicity	
Birds: Acute oral LD ₅₀ for bobwhite quail Dietary LC ₅₀ (8 d) for mallard duck	>2510 mg/kg >5620 ppm
Fish: LC ₅₀ (96 h) for rainbow trout Bluegill sunfish	1.23 mg/ℓ 3.16 mg/ℓ
Daphnia EC ₅₀ (48 h)	11.24 mg/ℓ
Algae E _b C ₅₀ (120 h) for <i>Selenastrum capricornutum</i> <i>Navicula pelliculosa</i> E _b C ₅₀ (96 h) 17 mg/ℓ	0.008 17 mg/ℓ
Other aquatic spp LC ₅₀ (96 h) for mysid shrimps (<i>Mysidopsis bahia</i>) E _d C ₅₀ (14 d) for <i>Lemna gibba</i>	1.4 mg/ℓ 0.023 mg/ℓ
Bees LD ₅₀ (oral) LD ₅₀ (contact)	>85 µg/bee >0.200 µg/bee
Worm LC ₅₀ (14d) earthworms	570 mg/kg soil

Terbuthylazine	
Acute toxicity	
Birds: Acute oral LD ₅₀ for ducks & Japanese quail Dietary LC ₅₀ (8 d) for ducks and quail	>2 000 mg/kg >5620 ppm
Fish: LC ₅₀ (96 h) for rainbow trout Mirror carp	2.2 >5.7 mg/ℓ
Daphnia: EC ₅₀ (48 h)	≥69.3 mg/ℓ
Algae: EC ₅₀ (72 h) for <i>Scenedesmus subspicatus</i>	0.016 mg/ℓ
Bees LD ₅₀ (oral and contact)	>200 µg/bee
Worm LC ₅₀ (14 d) for earthworms	>1000 mg/kg soil

ENVIRONMENTAL EFFECTS:

S-metolachlor

Animals – Rapidly and efficiently absorbed, fairly uniformly distributed and rapidly excreted in urine and faeces. Plants – Metabolism involves dechlorination and conjugation to glutathione S-transferases, followed by further degradation.

Terbuthylazine

Animals – In mammals, following oral administration, 70- 80% is eliminated in the urine and faeces within 24 hours, and almost all within 48 hours. Plants – Triazine-tolerant plants (e.g. maize) rapidly dechlorinate terbuthylazine to hydroxyl-terbuthylazine.

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Persistence and degradability:

S-metolachlor

In aerobic soils dissipates rapidly due to microbial activity. Geomean DT50 (lab,aerobic) 21.2d.

Terbuthylazine

In aerobic soils, dissipation is mainly due to microbial activity. DT50 (field) 17.4

Bio-accumulative Potential: Not determined.

Mobility in soil:

S-metolachlor KFoc 189 (61-369 l/kg)

Terbuthylazine Adsorption on soils is medium, KFoc 224.

Other adverse effects: Not determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General Information: Do not discharge into drains, water courses or onto the ground. Discharge, treatment or disposal may be subject to national, state, or local laws. Empty containers may contain product residues. 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.

Disposal Methods:

Destroy the container by perforating and flattening and dispose of through an approved waste dump site, incineration plant or recycling company.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.

Product/ packaging disposal: Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number:	3082
Un proper shipping name	Environmentally hazardous substance, Liquid, N.O.S. (Terbuthylazine 497.2g/l + S-metolachlor 102.8g/l)
UN Classification transport hazard class(es):	9
Packing group (if applicable)	III
Marine pollutant (Y/N)	Yes, Considered a marine pollutant
Transport in bulk according to MARPOL 73/78, Annex II and the IBC Code:	Not available

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 Substances.

Relevant information regarding restrictions:

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 11014:2010 – Safety data sheet for chemical products, Content and order section

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.

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Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

GHS aligned

Relevant classification and H statements (number and full text):

H302: Harmful if swallowed

H317: May cause an allergic skin reaction

H315: Causes skin irritation

H320: Causes eye irritation

H318: Causes serious eye damage

H340: May cause genetic defects

H350: May cause cancer

H400 + 401 – Very 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:

To the best of our knowledge, the information contained herein is accurate and is based on the present state of our knowledge and does not therefore guarantee specific properties. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for any accuracy or completeness of the information contained herein.

Final determinations of suitability of any material are sole responsibility of the users, who must take responsibility for observing existing laws and regulations. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.