

# 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](mailto: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: **DUPLEX 600 SC**

Additional information: Atrazine & Terbutylazine

### 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, Category 5                                    | H303: May be harmful if swallowed.                          |
| Skin Sensitization, Skin, Category 1                          | H317: May cause an allergic skin reaction.                  |
| Specific target organ toxicity, repeated exposure, Category 2 | H373: May cause damage to organs.                           |
| Hazardous to the aquatic environment                          | H400: Very toxic to aquatic life.                           |
|                                                               | H410: 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.

### Label elements



Hazard pictograms:

Signal Word: **DANGER**

Hazard Statements:

H303: May be harmful if swallowed.

H317: May cause an allergic skin reaction.

H373: May cause damage to organs.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P314 Get medical advice/attention if you feel unwell.

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P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P391 Collect spillage.

P501 Dispose of contents/container to...

**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<br>% by weight | Classification EC 1272/2008 |      |
|------------------------------|-------------------|------------------------------|-----------------------------|------|
| Atrazine                     | CAS No. 1912-24-9 | 29.1                         | Skin Sens. 1                | H317 |
|                              |                   |                              | STOT RE 2                   | H373 |
|                              |                   |                              | Acute Aquatic 1             | H400 |
|                              |                   |                              | Aquatic Chronic 1           | H410 |
| Terbuthylazine               | CAS No. 5915-41-3 | 29.1                         | Acute Tox. 4                | H302 |
|                              |                   |                              | STOT RE 2                   | H373 |
|                              |                   |                              | Acute Aquatic 1             | H400 |
|                              |                   |                              | Aquatic Chronic 1           | H410 |
| 1,2-Benzisothiazol-3(2H)-one | CAS No. 2634-33-5 | < 0,05                       | Acute Tox. 4                | H302 |
|                              |                   |                              | Skin Irrit. 2               | H315 |
|                              |                   |                              | Eye Dam. 1                  | H318 |
|                              |                   |                              | Skin Sens. 1                | H317 |
|                              |                   |                              | Aquatic Acute 1             | H400 |
| Sodium hydroxide             | CAS No. 1310-73-2 | < 0.1                        | Met. Corr. 1                | H290 |
|                              |                   |                              | Skin Corr. 1A               | H314 |
|                              |                   |                              | Eye Dam. 1                  | H318 |

*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:

In case of accident or unwellness, seek medical advice immediately (show direction for use or data sheet if possible).

First aider: Pay attention to self-protection.

### In case of inhalation:

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

### In case of skin contact:

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

### In case of eye contact:

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Immediately flush with plenty of water. After initial flushing, remove contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**In case of ingestion:**

Rinse mouth. Drink plenty of water. If symptoms persist, call a physician

**Self-protection of the first aider:** use personal protective equipment as required

**Most important symptoms and effects, both acute and delayed:** None

**Advice to physician:**

There is no specific antidote. Treat symptomatically and supportively as and when required.

**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 extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**SMALL FIRE:** See above.

**LARGE FIRE:** See above.

**Unsuitable extinguishing media:** High volume water jet. Use a water jet only to cool heated containers.

**Specific hazards arising from the mixture:**

No specific hazard known

**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. In the event of fire and/or explosion do not breathe fumes.

## SECTION 6. ACCIDENTAL RELEASE

**Personal precautions, protective equipment and emergency procedures:**

Avoid contact with skin, eye or clothing. Use personal protective equipment as required. Evacuate personal to safe areas. Keep people away from and upwind of spill/ leak.

**For non-emergency personnel:** Keep all personal away. Avoid contact with eyes and skin.

**For emergency responders:** Wear appropriate personal protective equipment. Avoid contact and ventilate area of the spill or leakage.

**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 entry into waterways, sewers, basement or confined areas. Do not flush into surface water or sanitary sewer systems. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains

**Methods and materials for containment and cleaning up:**

**Material for containment and cleaning up:**

Take up mechanically, placing in appropriate container for disposal

**Reference to other sections:**

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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, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapours/pray. Use with local exhaust ventilation

**Protective measures:** General occupational hygiene: when using do not eat, drink or smoke. Ash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended

### **Conditions for safe storage, including incompatibilities:**

Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children. Keep in properly labelled containers

### **Incompatible substances:**

None known

## 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.

### **Exposure control:**

#### **Appropriate engineering controls:**

Ensure adequate ventilation, especially in confined areas

#### **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:**

Use only with adequate ventilation

#### **Hand protection:**

Suitable chemical resistance gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minimum Permeability time (permeation) according to EN 374) e.g., nitrile rubbers (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

#### **Eye/face protection:**

tight sealing safety goggles when handling the product. Contact lenses are not protective eye devices.

#### **Skin and body protection:**

Suitable protective clothing. Apron, gloves made of plastic or rubber

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**Environmental exposure controls:** Do not allow into any sewers, on the ground or into any body of water

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

|                                               |                |
|-----------------------------------------------|----------------|
| <b>Physical state :</b>                       | Liquid         |
| <b>Appearance:</b>                            | Not available. |
| <b>Colour:</b>                                | off-white      |
| <b>Odour:</b>                                 | No odour.      |
| <b>pH (1% aqueous dilution):</b>              | Not available. |
| <b>Melting point:</b>                         | Not available. |
| <b>Freezing Point:</b>                        | Not available. |
| <b>Boiling Point:</b>                         | Not available. |
| <b>Flash Point:</b>                           | Not available. |
| <b>Flammability:</b>                          | Not available. |
| <b>Upper/lower explosion limits:</b>          | Not available. |
| <b>Vapour Pressure (mm Hg):</b>               | Not available. |
| <b>Relative Vapour Density:</b>               | Not available. |
| <b>Density:</b>                               | 1.109 ± 0.005  |
| <b>Solubility:</b>                            | Not available. |
| <b>N-octanol/water partition coefficient:</b> | Not available. |
| <b>Auto-ignition temperature:</b>             | Not available. |
| <b>Decomposition temperature:</b>             | Not available. |
| <b>Viscosity:</b>                             | Not available. |
| <b>Explosive properties:</b>                  | Not available. |
| <b>Oxidizing properties:</b>                  | Not available. |
| <b>Bulk density:</b>                          | Not available. |
| <b>Surface tension:</b>                       | Not available. |

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity:** Not available

### Chemical stability:

The product is stable for two (2) 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.

**Possibility of hazardous reactions:** None under normal processing

**Conditions to avoid:** Heat, flames and sparks

**Incompatible materials:** No information available

**Hazardous decomposition products:** None under normal storage conditions

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects:

Acute toxicity

Oral : May be harmful if swallowed.

| atrazine (ISO);2-chloro-4-ethylamine-6- isopropylamine-1,3,5-triazine (1912-24-9) |                       |
|-----------------------------------------------------------------------------------|-----------------------|
| LD50 oral rat                                                                     | 1869 mg/kg bodyweight |
| LD50 dermal rat                                                                   | 3100 mg/kg bodyweight |
| LC50 Inhalation - Rat                                                             | 5.8 mg/l/4h           |

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| <b>terbuthylazine (ISO); N-tert-butyl-6-chloroN'-ethyl-1,3,5-triazine- 2,4-diamine (5915-41-3)</b> |                                      |
|----------------------------------------------------------------------------------------------------|--------------------------------------|
| LD50 oral rat                                                                                      | 1000 – 1590 mg/kg bodyweight         |
| LD50 dermal rat                                                                                    | > 2000 mg/kg bodyweight              |
| LC50 Inhalation - Rat                                                                              | > 5.3 mg/l/4h                        |
| Skin irritation/ corrosion (rabbits)                                                               | Not classified                       |
| Eye damage / irritation (rabbits)                                                                  | Not classified                       |
| Respiratory or skin sensitization                                                                  | May cause an allergic skin reaction. |
| Germ cell mutagenicity                                                                             | Not classified                       |
| Carcinogenicity                                                                                    | Not classified                       |
| Reproductive toxicity                                                                              | Not classified                       |
| Specific Target Organ Toxicity STOT single exposure                                                | Not classified                       |
| Specific Target Organ Toxicity STOT repeated exposure                                              | May cause damage to organs.          |
| Aspiration hazard                                                                                  | Not classified                       |

## SECTION 12. ECOLOGICAL INFORMATION

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

Ecology - water : Very toxic to aquatic life with long lasting effects.

| <b>atrazine (ISO);2-chloro-4-ethylamine-6- isopropylamine-1,3,5-triazine (1912-24-9)</b> |                                             |
|------------------------------------------------------------------------------------------|---------------------------------------------|
| LC50 - Fish                                                                              | 4.5 mg/l (96 h, Oncorhynchus mykiss)        |
| EC50 - Crustacea                                                                         | 85 mg/l (48 h, Daphnia magna)               |
| ErC50 - Algae                                                                            | 0.059 mg/l (72 h, Raphidocelis subcapitata) |
| ErC50 - Other Aquatic Plants                                                             | 0.019 mg/l (7 d, Lemna gibba)               |
| NOEC - Chronic Fish                                                                      | 2 mg/l (21 d, Oncorhynchus mykiss)          |

| <b>terbuthylazine (ISO); N-tert-butyl-6-chloroN'-ethyl-1,3,5-triazine- 2,4-diamine (5915-41-3)</b> |                                                    |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------|
| LC50 - Fish                                                                                        | 2,2 mg/l (96 h, Oncorhynchus mykiss)               |
| ErC50 - Algae                                                                                      | 0,028 mg/l (72 h, Pseudokirchneriella subcapitata) |
| ErC50 - Other Aquatic Plants                                                                       | 0,412 mg/l (14 d, Lemna gibba)                     |
| NOEC - Chronic Fish                                                                                | 0,09 mg/l (21 d, Oncorhynchus mykiss)              |
| NOEC - Chronic Crustacea                                                                           | 0,019 mg/l (21 d, Daphnia magna)                   |

### ENVIRONMENTAL EFFECTS:

**Abiotic Degradation:** No data available

**Persistence and degradability: Atrazine:** No data available

**Terbuthylazine:** No data available

**Bio-accumulative Potential: Atrazine:** Log Pow: No data available

**Terbuthylazine:** Log Pow:  $\geq 3,4$  (25 °C)

**Mobility in soil: Atrazine:** Surface tension: No data available

**Terbuthylazine:** Surface tension: 71,8 mN/m

**Biodegradation:** No data available

**Other adverse effects:** No data available

## 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

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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.  
(Atrazine, Terbutylazine)  
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.

**Chemical Safety Assessment carried out?** No

## SECTION 16. OTHER INFORMATION

**Indication of changes:**

GHS aligned

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

H290: May be corrosive to metals.  
H302: Harmful if swallowed.  
H303: May be harmful if swallowed.  
H314: Causes severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H373: May cause damage to organs.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.  
H412: Harmful to aquatic life with long lasting effects.

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## **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.