MATERIAL SAFETY DATA SHEET

STATEMENT OF HAZARDOUS NATURE:
Not Hazardous according to the criteria of NOHSC.

COMPANY DETAILS:
Syngenta Crop Protection Pty Limited
ABN 33 002 933 717
140-150 Bungaree Rd,
PENDELE HILL NSW 2145

IDENTIFICATION

PRODUCT NAME: ENVOKE Herbicide
Formulation type: Water dispersible granules
Active Ingredient: Trifloxysulfuron sodium
Product Code No.: A9842A
Chemical type: Sulfonylurea
UN Number: Not required for sales pack

Dangerous Goods Class/ and Subsidiary Risk: Not required for Sales pack
Hazchem Code: 2X
Packaging Group: III
Poisons Schedule: Not scheduled

USE: Herbicide for the post emergent control of various broadleaf weeds and annual grasses in cotton. Refer to the product label for full directions for use.

PHYSICAL DESCRIPTION/PROPERTIES

- Appearance: Beige granules
- Odour: Non-specific
- Behaviour in water: Dispersible

Flash point: Not applicable
Flammability: Not flammable
Combustibility: Combustible

OTHER PROPERTIES

- Spontaneous decomposition: Excluded
- Chemical stability: Stable under standard conditions
- Explosive properties: Non-explosive
- Thermal sensitivity: Not sensitive to heat
- Sensitivity to humidity: Not sensitive to humidity
- pH: 8 – 12 (in 1% deion. water)
- Sensitivity to light: Not sensitive to light
- Bulk density: 0.8 – 0.8 g/cm³

INGREDIENTS

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Content (%w/v)</th>
</tr>
</thead>
<tbody>
<tr>
<td>145099-21-4</td>
<td>75</td>
</tr>
<tr>
<td>61790-53-2</td>
<td>10 - 20</td>
</tr>
<tr>
<td>25417-20-3</td>
<td>2 - 5</td>
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</tbody>
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HEALTH HAZARD INFORMATION

HEALTH EFFECTS

ACUTE

Toxicity - This product is unlikely to present acute hazard under normal use. (WHO Hazard Class III)

Swallowed:

LOW TOXICITY
Tests on rats indicate low toxicity following a single oral dose of the product. (LD₅₀ > 5000 mg/kg)

Dermal absorption:

LOW TOXICITY
Tests on rats indicate low toxicity following dermal application of the product. (LD₅₀ > 2000 mg/kg)

Inhaled:

LOW TOXICITY
Tests on rats indicate low toxicity following inhalation of the active ingredient, trifloxysulfuron sodium. (LD₅₀ 4hr > 5.03mg/L)
Irritation  (Based on rabbit studies with the product)
Eye:  NON IRRITANT
Skin:  NON IRRITANT

Skin Sensitisation  (Based on guinea pig assessment with the product)
NON-SENSITISER

CHRONIC (Active Ingredient)
Trifloxysulfuron has been extensively tested for chronic toxicity assessment. No evidence of carcinogenic, mutagenic, teratogenic or reproductive effects was obtained.

FIRST AID
In case of poisoning by any exposure route contact a doctor or Poisons Information Centre. Phone 131 126.

Swallowed: If poisoning occurs contact a doctor or Poisons Information Centre. Administer medicinal charcoal in a large quantity of water. Do not induce vomiting.
Eye: If product gets in eyes, wash it out immediately with water
Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water.
Inhaled: Move affected person to fresh air and keep at rest until recovered.

ADVICE TO DOCTOR
No specific antidote exists. Treat symptomatically.

PRECAUTIONS FOR USE
ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

EXPOSURE STANDARDS
Ingredient  Occupational Exposure Limit
Silica  2 mg/m$^3$ of air (NOHSC – time weighted average)

No official exposure standards have been set for the other ingredients of this product.

Exposure Potential - Swallowing is unlikely under normal conditions of usage. Significant skin uptake is unlikely to occur. Inhalation of spray mist is a possible route of exposure. This product is diluted with water prior to use as a spray. This diluted form is less toxic by all routes of exposure.
Re-entry Period - DO NOT enter treated areas without protective clothing until the spray has dried.

ENGINEERING CONTROLS
No special requirements. Product is used outdoors.

PERSONAL PROTECTION
Will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing spray wear cotton overalls buttoned to the neck and wrist or equivalent clothing.

FLAMMABILITY
Product is NON FLAMMABLE. Product is combustible at elevated temperatures.
SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT
Store in tightly sealed original containers in a dry secure place away from fertilisers, seed, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorised persons and animals.

Transport Classification – Road and Rail (ADR):
- UN No.: 3077
- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS
- Class: 9
- Substance, Solid, N.O.S.
- Packing Group: III
- Additional Information: TRIFLOXYSULFURON SODIUM 75%

SPILLS AND DISPOSAL
In case of spillage it is important to take all steps necessary to:
- Avoid eye and skin contact.
- Avoid contamination of waterways.

Procedure for spill:
1. Keep all bystanders away.
2. Wear full length clothing and PVC gloves.
3. Reposition any leaking containers so as to minimise further leakage.
4. For a product spill: Sweep granule concentrate into a pile.
   For a prepared spray spill:
   Dam and absorb spill with an absorbent material (e.g. sand or soil).
5. Shovel the absorbed material or granule concentrate into drums.
6. For quantities up to 50kg of product bury in a secure landfill site.
   For quantities greater than 50kg seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.
7. Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

Dispose of empty, used containers by:
(a) Single rinse before disposal. Add the rinsings to the spray tank.
(b) DO NOT dispose of undiluted chemicals on site.
(c) Puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

FIRE/EXPLOSION HAZARD
This product is non-explosive. Product is combustible. Extinguish warehouse and factory fires using fine-water spray or foam. During a fire this product may release smoke and hazardous decomposition products such as nitrogen oxides, carbon monoxide, sulfur dioxide and hydrogen fluoride. When fighting a major fire wear an air-supplied respirator. Do not allow fire-water to enter drains.

OTHER INFORMATION
Trifloxysulfuron sodium is practically non-toxic to fish, \[LC_{50} (96hr) \text{ rainbow trout} > 146 \text{ mg/L} \], highly toxic to algae \[IC_{50} \text{ (growth inhibition for green algae, 72hr)} = 0.043 \text{ mg/L} \] and is practically non-toxic to aquatic invertebrates \[EC_{50} (48h, Daphnia magna) > 139 \text{ mg/L} \]. ENVOKE Herbicide is practically non-toxic to birds, bees, earthworms and invertebrates.

Note: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Federal health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT:
Regulatory Affairs Manager - Crop Protection - (02) 9688 0444
24 HOURS EMERGENCY CONTACT: 1 800 033 111

This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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