MILLER CHEMICALS SA

Co. Reg. No.: 2002/009331/07

Subject: Effective Date: Revision no:

April 2006 May 2007(1)

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE

EXIT Product name:

Agro adjuvant

UN No.: Not Regulated.

Manufacturer: **MILLER**

PO Box 333

Hanover, Pennsylvania, 17331,

USA

Registration holder: MILLER CHEMICALS SA.

Co. Reg. No. 2002/009331/07

P.O. Box 370

DERDEPOORT, 0035 Tel. (+27) 83 325 8536

Villa Crop Protection (Pty) Ltd. Supplier:

PO Box 10413,

Aston Manor, 1630, South Africa

(011) 396 2233 Telephone: Fax: (011) 396 4666 www.villacrop.co.za Website:

Emergency telephone: (011) 396 2233

24 Hr Emergency Numbers:

Bateleur: 083 1233 911 or 0860 333 911

(Client: Villa Crop Protection)

In case of Poisoning: **Red Cross Poison Information**

021 689 5227 Centre:

Tygerberg Poison Information

Centre: 021 931 6127

COMPOSITION/INFORMATION ON INGREDIENTS

Common name: Non-ionic activator-enhancer

Vegetable **Chemical Name:** Oil and

Dodecylphenyl Ethoxylate

CAS Nº.: 1) Not Applicable Chemical Family: 1) Vegetable oil Chemical Formula: 1) Not applicable

Formulation: 1) Vegetable oil: >60% (w/w)

2) Emulsifier: 1-10% (w/w)

Agrochemical Use: adjuvant with

wetting and penetration properties.

Components: Methyl esters of vegetable oil and

emulsifier.

SYMBOLS: Not Regulated and not

Environmentally dangerous. RISK-PHRASE(S): R 22, R 36

3. HAZARD IDENTIFICATION

Likely routes of exposure:

Skin, eye contact, ingestion and inhalation.

ACUTE ORAL LD50 (rat): 5514mg/kg

ACUTE DERMAL LD50 (rabbit): >5000mg/kg, ACUTE INHALATION 4-hour LC50 (rat):>5.88 mg/e

THIS PRODUCT IS AN EYE IRRITANT (rabbit) - WASHING WITH WATER ELIMINATES IRRITATION - see below

THIS PRODUCT IS NOT A SKIN IRRITANT (rabbit)

CHRONIC: NO DATA AVAILABLE

HIGH VAPOR CONCENTRATIONS MAY BE IRRITATING TO EYES AND RESPIRATORY TRACT MAY CAUSE HEADACHES AND DIZZINESS.

4. FIRST AID MEASURES AND PRECAUTIONS

INGESTION: DO NOT INDUCE VOMITING. CALL A PHYSICIAN.

EYES: FLUSHING WITH WATER FOR AT LEAST 15 MINUTES, SEEK MEDICAL ATTENTION. SKIN: REMOVE ANY CONTAMINATED CLOTHING AND WASH SKIN WITH SOAP AND WATER.

INHALATION: REMOVE VICTIM TO FRESH AIR, CALL A PHYSICIAN

5. FIRE FIGHTING MEASURES

Fire hazard and explosion hazard:

In a fire, overheated drums may rupture and the product burns. In fire situations where large quantities of this product are involved, always fight fires upwind. If down wind, in enclosed spaces or in smoke or fumes, wear self-contained breathing apparatus.

Extinguishing agents:

Extinguish fire with water spray, foam, carbon dioxide or dry chemical powder.

Fire fighting:

Fight fire from maximum distance. Remove container from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing

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agent for the type of surrounding fire. Water can be used to cool unaffected containers.

Personal protective equipment:

Fire fighters and others that may be exposed should wear full chemical protective clothing.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:

For personal protection see Section 8.

Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Occupational spill:

Contain and absorb with dry earth, sand or similar material, shovel up and dispose of in an area approved by local authority by-laws. Small spills or leaks may be safely mopped up or flushed to drain, if permitted. Incineration of disposed material is not recommended, as it is unlikely to adequately burn. Do NOT contaminate sewers or watercourses.

7. HANDLING AND STORAGE REQUIREMENTS

Handling:

Use with adequate ventilation. Wash hands before eating, drinking, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing.

Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage:

Keep out of reach of unauthorized persons, children and animals. Store in its original labelled container in shaded, well-ventilated area. Store in dry area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT: Clothing:

Employee must wear appropriate protective (impervious) clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Gloves:

Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance. **Eve protection:**

Avoid contact with eyes. The use of safety goggles is recommended.

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:

Amber liquid.

Flash point:

> 93℃ .

pH:

No information available.

Relative density:

900 - 930 kg/m 3 at 20 $^{\circ}$ C.

Solubility in water:

Emulsified in water

Vapour pressure:

No information available.

Boiling point:

224°C.

Viscosity:

Liquid.

10. STABILITY AND REACTIVITY

Stability:

Stable under normal, dry storage conditions.

Storage stability:

Stable up to two years under normal conditions.

Incompatibility:

The product is incompatible with strong oxidizing agents. The product is compatible with many other pesticides when used at normal rates. However, a compatibility test is required before using with other products. Do not physically mix concentrate directly with other herbicides or pesticide concentrates; always dilute first.

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Thermal decomposition:

Oxides of carbon under fire conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀:

5514 mg/kg in rats.

Acute dermal LD₅₀:

> 5000 mg/kg in rats.

Acute inhalation LC50-

 $LC_{50}(rat) > 5.88 \text{ mg}/\ell (4-\text{hour}).$

Acute skin irritation:

Data for product with > 60 % vegetable oil and 1 – 10%

emulsifier:

Non-irritating.

Acute eye irritation:

Data for product with > 60 % vegetable oil and 1 – 10% emulsifier:

Eve irritating.

Dermal sensitization:

In view of intended use, no reason to expect any risk.

Carcinogenicity:

In view of intended use, no reason to expect any risk.

Teratogenicity:

In view of intended use, no reason to expect any risk.

Mutagenicity:

In view of intended use, no reason to expect any risk.

12. ECOLOGICAL INFORMATION

Degradability:

No information available

Mobility:

No information available

Accumulation:

No information available.

ECOTOXICOLOGY:

Birds: No information available. **Fish:** No information available. **Daphnia:** No information available.

13. DISPOSAL CONSIDERATION

Pesticide disposal:

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed should be disposed of in a landfill approved for pesticide disposal. Never pour untreated waste or surplus products 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.

Package product wastes:

Emptied containers retain vapour and product residues. Observe all labelled safeguards. **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsings to the contents of the spray tank before destroying the container.

Destroy the emptied containers by perforation and flattening. Bury in an approved dumpsite. Do not reuse the empty container for any other purpose.

14. TRANSPORT INFORMATION

UN NUMBER: NOT REGULATED Land transport - ADR/RID: Not available

Substance ID NR: Not available

Class:

Shipping name: Vegetable Oil

15. REGULATORY INFORMATION

Symbol:

Indication of danger: Not Regulated and not

Environmentally dangerous.

Risk phrases:

R 22 Harmful if swallowed. R 36 Irritating to eyes.

Safety phrases:

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In case of contact with eyes rinse immediately with plenty of water and

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seek medical advice.

Avoid release to the environment.

16. OTHER INFORMATION

Packaging and Labelling:

Packed in 1, 5, 10, 20 and 25 litres high-density plastic containers and labelled according to South African regulations and guidelines.

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 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 bit without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT Compiled: April 2006 **Reviewed:** May 2007