SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

ARYSTA LifeScience South Africa (Pty) Ltd
Co. Reg. No.: 2009/019713/07
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Product Name: CYROMAZINE 75 WP
Product Use: Insecticide
Creation Date: August 2006
Revision Date: October 13
24 Hr Emergency Number: 082 771 2712
In case of Poisoning:
Poison Information Centre: 082 446 8946
Tygerberg Hospital: (021) 931 6129
Poison Emergency Enquiries: (021) 689 5227
In case of Spillage:
HAZMAT: 0800 147 112

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Common name: cyromazine
Chemical Name: N-cyclopropyl-1,3,5-triazine-2,4,6-triamine
CAS No.: 66215-27-8
Use: substituted melamine (triazine) insecticide
Formulation: cyromazine: 750 g/kg

Hazardous ingredients of toxicological concern:
Inert: concern: % present:
cyromazine Harmful > 75 %
silica white + surfactant

Symbols: Xn
Risk-phrase(s): R20/22, R36/37/38

SECTION 3 - HAZARD IDENTIFICATION

Fire, Explosion and Reactivity Hazards: May presents a slight dust explosion hazard.
Likely routes of exposure: skin and eye contact, ingestion and inhalation.
Direct contact with product may cause mild eye irritation and moderate skin irritation. Is not a skin sensitizer.
When swallowed, the product is harmful and can cause nausea, vomiting, abdominal distress and diarrhea. When inhaled, the product is harmful. Inhalation of the product can cause irritation of the nose, throat and respiratory tract.

SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS

Inhalation:
Move the victim to fresh air or remove source of contamination. Keep person warm and at rest. Administer artificial respiration if breathing has stopped. Get medical attention immediately if necessary.

Skin contact:
Move the victim to fresh air and remove all contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash affected skin areas gently and thoroughly with water and non-abrasive soap. Do not rub the skin. If irritation persists, seek medical advice. Persons who become sensitized may require specialized medical management with anti-inflammatory agents or cortisone-containing emulsions.

Eye contact:
Immediately flush the contaminated eyes with gently flowing cold water for 15 to 20 minutes, occasionally lifting the upper and lower lids. If irritation persists, seek medical advice.
Ingestion:
Seek medical advice immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Advice to physician:
This product contains cyromazine. No antidote is available. Empty the stomach by gastric lavage. Give activated charcoal if person is alert. Treat symptomatically and supportively.

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing agents:
Extinguishing media - small fires. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Extinguishing media - large fires, alcohol-resistant foam water spray. Do not use a solid water stream as it may scatter and spread fire.

Fire fighting:
Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.
Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours. Keep upwind.
Remove container from fire area if possible and without risk. Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways.
Do not use high volume water jet, due to contamination risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Personal protective equipment:
Fire-fighters and others that may be exposed should wear full chemical protective clothing and self-contained breathing apparatus. See section 8 for recommendations regarding Exposure Controls/Personal Protection.

SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:
Do not breathe in mist or fumes. Avoid contact with skin and eyes. For personal protection see Section 8.

Environmental precautions:
Do not allow entering drains or watercourses. Cyromazine is highly toxic to fish and aquatic species. In case of accidental spill, prevent the material from getting into lakes, rivers and other bodies of water. Isolate discharged material and keep material out of water sources. 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:
Keep spectators away and upwind. Remove all sources of flames and sparks. Do not touch spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

For spills: Soak up with absorbent material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorbent material. Do not flush spilled material into drains.

To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited.

Do not get water inside containers.

SECTION 7 - HANDLING AND STORAGE REQUIREMENTS

Handling:
Wear appropriate protective equipment when handling the product. Do not handle material near food, feed or drinking water. Avoid contact with eyes, prolonged contact with skin, and inhalation of mist and vapour. Use with adequate ventilation. Do not eat, drink or smoke while working. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the pesticide 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 under lock and key and out of reach of unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area, away from heat, sparks and other sources of ignition. No smoking is allowed. Protect the product from temperatures below 0°C and above 48°C. Not to be stored next to feeds, food and water supplies. Avoid breaking the containers, spillage or leaks. Comply with the local regulations.
SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

Provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT:

Respirator:
In the event of an accidental discharge of the material when a heavy vapour or mist is produced, workers should put on an approved full-face respirator suitable for protection from spray or mists of pesticides. Respirator is not required in the case of normal application procedure of the product.

Clothing:
Wear appropriate chemical-resistant protective clothing or other impervious clothing. Wear boots and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing. Wash clothing after use.

Gloves:
Wear appropriate chemical-resistant protective gloves whenever the product is handled to prevent contact with this substance. Wash gloves after use.

Eye protection:
Use safety goggles, safety glasses or face-shield.

Emergency eye wash: Where there is any possibility that an employee’s eyes may be exposed to this substance, an eye wash fountain or appropriate alternative within the immediate work area for emergency use, must be provided.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: white to tan wettable powder.
Odour: Slightly fishy.
Solubility in water: Suspendsible with water.
Density: 1,290 g/ℓ
pH of 1 % aqueous dilution: 6 - 10 at 1 % w/v
Flash point: None.

SECTION 10 - STABILITY AND REACTIVITY

Stability:
Considered stable in unopened original packages, under normal, dry storage conditions. Compatible with most fungicides, insecticides, light and medium mineral oils. Always perform a compatibility test before using with other products. Do not physically mix concentrate directly with other pesticide concentrates, always dilute first.

Storage stability:
Stable for 2 years under normal, dry storage conditions in unopened packages. Avoid extremes of temperature; below 0 °C and above 48 °C.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity and Irritation Studies:

Ingestion: slightly toxic, oral LD₅₀ (rat): 4,460 mg⁻body weight
Dermal: slightly toxic, dermal LD₅₀ (rabbit): 2,010 mg⁻body weight
Inhalation: slightly toxic, inhalation LC₅₀ (rat): > 2,5 mg⁻air per 4 hours
Eye contact: mildly irritating (rabbit)
Skin contact: moderately irritating (rabbit)
Skin sensitization: not a sensitizer (guinea pig)
Mutagenic potential, reproductive hazard potential: none observed
Chronic and Subchronic Toxicity Studies/carcinogenic potential: none observed
Toxicity of other components:
Silica White: is listed as an IARC carcinogen not classifiable as a human carcinogen with limited evidence. Prolonged exposure to Silica White may cause damage to respiratory system and irritation to skin and eyes.
Surfactant: Exposure can result in eye, skin and respiratory tract irritation.
SECTION 12 - ECOLOGICAL INFORMATION

Summary of effects: lightly toxic to birds and fish, and moderately toxic to aquatic invertebrates.

Eco-Acute toxicity:
- Rainbow trout 96 hr LC50: 51 mg/ℓ
- Bluegill sunfish 96 hr LC50: 1,785 mg/kg
- Daphnia magna 48 hr LC50: 9,1 mg/ℓ
- Bobwhite oral LD50: 1,785 mg/kg
- Bobwhite 8-day dietary LC50: > 5,620 ppm
- Mallard oral LD50: > 2,510 mg/kg
- Mallard 8-day dietary LC50: > 5620 ppm

Eco-Chronic Toxicity:
- Fish early life stage MATC: 22 mg/ℓ
- Invertebrate life cycle MATC: 0,45 mg/ℓ

Environmental fate:
- Stable in sterile water in both the light and the dark. Degrades moderately to slowly in aerobic soil in the light. Degrades more rapidly under aerobic and anaerobic conditions in the dark.

Mobility: classified as high to low in various types of soil. Bioaccumulation negligible.

SECTION 13 - DISPOSAL CONSIDERATION

Pesticide and container disposal:
Open dumping or burning of this pesticide is prohibited. 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.

Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

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 in the prescribed manner.

Do not re-use the empty container for any other purpose. Destroy it by perforation and flattening and bury in an approved dump site. Prevent contamination of food, feedstuffs, drinking water and eating utensils.

SECTION 14 - TRANSPORT INFORMATION

UN NUMBER: 3082
ADR/IRD:
- Packaging group: III
- Class: 9
- Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (maneb 43 %, zinc oxide 0,5 %)

IMDG/IMO:
- Packaging group: III
- Class: 9
- Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (maneb 43 %, zinc oxide 0,5 %)

MARINE POLLUTANT

SECTION 15 - REGULATORY INFORMATION

Symbol: Xi, N
Indication of danger: Irritant, Environmentally Hazardous Substance.

Risk phrases:
- R 20/22 Harmful by inhalation and if swallowed.
- R 36/37/38 Irritating to eyes, respiratory system and skin.
- R 40 Limited evidence of a carcinogenic effect.
- R 43 May cause sensitization by skin contact.
- R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
- S 2 Keep out of the reach of children.
- S 13 Keep away from food, drink and animal feeding stuffs.
- S 24/25 Avoid contact with skin and eyes.
- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

MATERIAL SAFETY DATA SHEET
Issued by: Arysta Lifescience South Africa Phone: 031 514 5600
Poison Information Centre: 082 446 8946; Tygerberg: (021) 931 6129; Poison Emergency Enquiry: (021) 689 5227
S 47/49  Keep only in original container at a temperature not exceeding 48 °C.
S 60  This material and its container must be disposed of as hazardous waste.
S 61  Avoid release to the environment. Refer to special instructions/safety data sheets.

SECTION 16 - OTHER INFORMATION

Packing and Labelling:
Packed in 1, 5, 10 kg plastic containers / bags and labelled according to the 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 but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.