1. PRODUCT AND COMPANY IDENTIFICATION

Name: FMC Chemicals (Pty) Ltd.
Address: P O Box 136
          Steenberg 7947

Trade name: Octave 50 WP
Usage: Fungicide
Chemical family: Imidazole
Chemical name: N-propyl-N-[2-)2,4,6-trichlorophenoxy)ethyl]imidazole-1-carboxamide(IUPAC)

Chemical abstract No.: 75747-77-2
                      278-301-3

Hazchem code: Xn, N
UN No.: 3077
Product Code(UVP): 05935229

IN CASE OF POISONING PLEASE PHONE: +27 (021) 931 6129

2. HAZARDS IDENTIFICATION

Risk advice to man and the environment
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Wettable powder (WP)
50% Prochloraz manganese chloride complex (equivalent to 46,1% Prochloraz)

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No. / EC-No.</th>
<th>Symbol(s)</th>
<th>R-phrase(s)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prochloraz manganese chloride complex</td>
<td>75747-77-2</td>
<td>Xn, N</td>
<td>R22, R50/53</td>
<td>50,00</td>
</tr>
<tr>
<td>Sulphonated aromatic polymer, sodium salt</td>
<td>278-301-3</td>
<td>Xi</td>
<td>R36/38</td>
<td>&gt; 5,00 - &lt; 25,00</td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES
General advice
Remove contaminated clothing immediately and dispose of safely. Symptoms of poisoning may only appear several hours later. Keep under medical supervision for at least 48 hours.

Inhalation
Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact
Wash off with soap and water. If symptoms persist, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion
When swallowed accidentally, do not induce vomiting, get medical help. Ingest activated charcoal. Rinse out mouth and give water in small sips to drink.

Notes to Physician

Symptoms
gastro-intestinal irritation

Risks
Chronic exposure damages the central nervous system and the liver.

Treatment
In the event of a mouthful or more being ingested, the following measures should be considered:
Gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.
Carefully monitor the liver functions.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Specific hazards during fire fighting
In the event of fire the following may be released:
Carbon monoxide (CO)
Nitrogen oxides (NOx)
Hydrogen chloride (HCl)

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit.

Further information
Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Use personal protective equipment.
Environmental Precautions
Do not allow to get into surface water, drains and ground water.
If the product contaminates rivers, lakes or drains inform respective authorities.

Methods for cleaning up
Sweep up or vacuum up spillage and collect in suitable container for disposal.
Keep in suitable, closed containers for disposal.

Additional Advice
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling
Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion
Keep away from heat and sources of ignition.
Dust may form explosive mixtures with air.

Storage
Requirements for storage areas and containers
Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage
Keep away from food, drink and animal feedingstuffs.

Temperature tolerance
-20 °C to 40 °C

Suitable materials
Polyethylene film within an outer package
** Containers up to 5 kg : Aluminium composite film (min. 0,007 mm Aluminium) **

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional Advice
Observe general limit for dust.

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection
Wear respirator with a particle filter mask (protection factor 10) conforming to European Norm EN149FFP2 or EN140P2 or equivalent.
Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand protection
Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0.40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection
Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection
Wear standard coverall and type 5 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Hygiene measures
Keep away from food, drink and animal feedingstuffs.
Wash hands immediately after work, if necessary take a shower.
Remove soiled clothing immediately and clean thoroughly before using again.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form powder
Colour off-white
Odour weak, characteristic

Safety data
pH approx. 7.5 at 10 g/l (23 °C)
Autoignition Temperature The product is not self-ignitable.
Dust Explosion Class St1
Bulk Density approx. 350 kg/m3 (bulk density tapped)
Water solubility dispersible
Partition coefficient: n-octanol/water log Pow: 4.38
The value mentioned relates to the active ingredient prochloraz.
Oxidizing properties No oxidizing properties
Explosivity Not explosive.
92/69/EEC, A.14 / OECD 113

10. STABILITY AND REACTIVITY
Hazardous Reactions
No hazardous reactions when stored and handled according to prescribed instructions. Dust may form explosive mixtures with air. Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity
LD50 (rat) 2.700 mg/kg

Acute Inhalation Toxicity
LC50 (rat) > 2.66 mg/l
Exposure time: 4 h
Highest attainable concentration.

Acute Dermal Toxicity
LD50 (rat) > 2.000 mg/kg

Skin Irritation
No skin irritation. (rabbit)

Eye Irritation
Slight irritant effect - does not require labelling. (rabbit)

Sensitization
Non-sensitizing. (guinea pig)
OECD Test Guideline 406, Magnusson & Kligman test
The value mentioned relates to the active ingredient prochloraz-manganese.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)
Bioaccumulation
Oncorhynchus mykiss (rainbow trout)
Bioconcentration factor (BCF): 200
The value mentioned relates to the active ingredient prochloraz.

Ecotoxicity effects
Toxicity to Fish
LC50 (Rainbow trout (Oncorhynchus mykiss)) 2,4 mg/l
Exposure time: 96 h

Toxicity to daphnia
EC50 (Water flea (Daphnia magna)) 4,3 mg/l
Exposure time: 48 h

Toxicity to algae
IC50 (Selenastrum capricornutum) 0,094 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient prochloraz.

13. DISPOSAL CONSIDERATIONS

Product
Must not be disposed of together with household garbage. Do not allow product to reach
sewage system.
Dispose of as hazardous waste.

Contaminated packaging
Do not use containers for other products.
Dispose of as unused product.

Waste key for the unused product
020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

ADR/RID/ADNR
UN-Number 3077
Labels 9
Packaging group III
Hazard no. 90
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROCHLORAZ MANGANESE CHLORIDE COMPLEX MIXTURE)

IMDG
UN-Number 3077
Labels 9
Packaging group III
EmS F-A , S-F
Marine pollutant Marine pollutant
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROCHLORAZ MANGANESE CHLORIDE COMPLEX MIXTURE)

IATA
UN-Number 3077
Labels 9
Packaging group III
Description of the goods ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROCHLORAZ MANGANESE CHLORIDE COMPLEX MIXTURE)

15. REGULATORY INFORMATION

Classification and labelling in accordance with the EC Directive on dangerous preparations 1999/45/EC as amended.

Classification:
Hazard warning labelling compulsory

Hazardous components which must be listed on the label:
• Prochloraz manganese chloride complex

Symbol(s)
N  Dangerous for the environment
R-phrase(s)
  R50/53  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)
  S35  This material and its container must be disposed of in a safe way.
  S57  Use appropriate container to avoid environmental contamination.

Exceptional labelling
To avoid risks to man and the environment, comply with the instructions for use.

16. OTHER INFORMATION

Further information
Text of R-phrases mentioned in Section 3
  R22  Harmful if swallowed.
  R36/38  Irritating to eyes and skin.
  R50/53  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information given in this Data Sheet has been included in accordance with the guidelines established by Regulation (EC) 1907/2006. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.