



MATERIAL SAFETY DATA SHEET

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Version : 2

Date : 15/2/2008

Supersedes : 11/4/2007

Product code :6242-NPF

MINUET EW

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : MINUET EW
Recommended uses : Insecticide
Name : FMC CHEMICAL Sprl
Address : Boulevard de la Plaine, 9/3
1050 BRUXELLES
BELGIQUE
Telephone number : 00 32 2 6459584
Telefax number : 00 32 2 6459655
* E-mail : msdsinfo@fmc.com
* EMERGENCY TELEPHONE NUMBER (Europe) : 00 32 14 58 45 45

2. HAZARDS IDENTIFICATION

MOST IMPORTANT HAZARDS :
Adverse human health effects : Harmful by inhalation and if swallowed
May cause sensitization by skin contact
Environmental effects : Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.
Physical and chemical hazards :
- Fire or explosion : Slightly combustible. May support combustion at elevated temperatures
Burning and thermal decomposition may form toxic by-products
Classification of the product : According to EC criteria, this product is classified as :
- HARMFUL
- DANGEROUS FOR THE ENVIRONMENT

3. COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE :
Chemical nature : Pyrethroid pesticide based on zeta-cypermethrin

* Hazardous constituents :

| Substance name | Contents | CAS No / EC No / Index No | Symbol(s) | R-Phrase(s) |
|---|-------------|-----------------------------------|-----------|----------------------|
| <u>Zeta-cypermethrin</u> | < 20 % | 52315-07-8 / 257-842-9 / ----- | Xn N | 20/22-43-50/53 |
| <u>A mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)</u> | <= 0.0015 % | 55965-84-9 / ----- / 613-167-00-5 | T N | 23/24/25-34-43-50/53 |
| <u>Tridecyl alcoholethoxylate phosphate, salt</u> | < 2 % | 68186-36-7 / ----- / ----- | Xi | 36/38 |

4. FIRST AID MEASURES

Inhalation : Move the affected person to the fresh air
If the person feels unwell :
Call a doctor
Skin contact : Remove all contaminated clothing and footwear
Wash with soap and water
In case of redness or irritation, call a doctor
Eye contact : Rinse immediately with plenty of water (for at least 15 minutes).
If irritation persists, consult an eye specialist
Ingestion : If the person is fully conscious, make him/her drink water. Never give an

FMC CHEMICAL Sprl

Boulevard de la Plaine, 9/3 1050 BRUXELLES BELGIQUE



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4. FIRST AID MEASURES

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unconscious person anything to drink
If the person is fully conscious, try to induce vomiting
Consult a doctor

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)
Foam
Powders

Not suitable extinguishing media : Water (the product is dangerous for the environment)

Specific fire fighting methods : Isolate fire area. Evacuate downwind
Contain the extinguishing fluids by bunding (the product is hazardous for the environment)
Do not attempt to fight the fire without suitable protective equipment
Do not breathe fumes.

Protection of fire-fighters : Self-contained breathing apparatus
Complete protective clothing

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid contact with skin and eyes
Do not attempt to intervene without a suitable protective equipment

Environmental precautions : Do not allow product to spread into the environment
Contain the spilled material by bunding (product is hazardous for the environment)

Methods for cleaning up :

- Recovery : Recover the product with absorbent material
- Neutralization : Absorb spillage with:
 - earth or sandNeutralize non-recoverable product with :
 - a solution of caustic or soda ash, and an appropriate alcohol (methanol, ethanol or isopropanol)
- Cleaning/decontamination : Wash with plenty of water and detergent
- Disposal : Dispose of contaminated material at an authorized site.

7. HANDLING AND STORAGE

HANDLING

Technical measures : Vapour extraction at source

STORAGE

Storage conditions :

- Recommended : Store :

- in a cool, well-ventilated area
- protected from humidity
- away from any source of ignition
- out of reach of children
- away from food and drinks and animal foodstuffs

Packaging materials :

- Recommended : Original packaging



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---------------------------------|---|
| Engineering measures : | Ensure good ventilation of the work station |
| Personal protective equipment : | |
| - Respiratory protection : | In the event of insufficient ventilation : Filtering respiratory protective device with a pesticide canister |
| - Hand protection : | Nitrile-rubber protective gloves |
| - Eye protection : | Safety spectacles |
| - Skin and body protection : | Handling product in large quantities : Impermeable suit (Hypalon, Tyvek, Saranex, PVC...). |
| Hygiene measures : | Always wash your hands after handling the product Always take a shower after work. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------|---|
| Physical state : | Liquid |
| Colour : | light tan or beige |
| Odour : | slight acrid |
| pH : | 4.15 |
| Flammability characteristics : | |
| - Flash point : | > 79 °C |
| - Auto-ignition temperature : | > 600 °C |
| Specific gravity : | 1.0305 g/cm ³ (20 °C) |
| Solubility : | |
| - in water : | Dispersible |
| Kinematic viscosity : | 63 - 1081 mPa.s (20 °C) 47 - 707 mPa.s (40 °C) |
| Surface tension : | 31.4 mN/m (25 °C) 30.1 mN/m (40 °C) |

10. STABILITY AND REACTIVITY

| | |
|--------------------------------------|---|
| Stability : | Stable at ambient temperature and under normal conditions of use |
| Hazardous reactions : | |
| - Materials to avoid : | - strong oxidizing agents |
| - Hazardous decomposition products : | On combustion or on thermal decomposition (pyrolysis) releases : Hydrogen cyanide Hydrochloric acid Chlorine Carbon oxides (CO, CO ₂) |

11. TOXICOLOGICAL INFORMATION

| | |
|--------------------|--|
| Product as it is : | No specific data. Data above have been obtained on a similar product |
| Acute toxicity : | Harmful by inhalation LC 50 inhalation / 4h (rat) : 2.09 mg/l LD 50 skin (Rabbit) : > 4000 mg/kg Harmful if swallowed LD 50 oral (rat) : 385 mg/kg |
| Acute symptoms : | Loss of co-ordination. Tremors Convulsions In case of contact with skin : Numbing |



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11. TOXICOLOGICAL INFORMATION (continued)

| | |
|-----------------|---|
| Local effects : | Tingling sensation. Burns |
| | Skin contact : May cause slight temporary irritation |
| | Eye contact : Not irritating |
| Sensitization : | May cause sensitization by skin contact |

12. ECOLOGICAL INFORMATION

DEGRADABILITY :

- Ultimate aerobic biodegradability : Zeta-cypermethrine :
DT50 water/sediment : 1.9 day(s)

Persistence: Zeta-cypermethrine :
Half-life (in soil) : <4-56 d
(Data obtained by analogy with : Cypermethrin cis/trans +/-40/60)

BIOACCUMULATION :

Octanol/water partition coefficient : Zeta-cypermethrine : 5
(Data obtained by analogy with : Cypermethrin cis/trans +/-40/60)

* Bioconcentration factor : Zeta-cypermethrine : BCF : 443
(Data obtained by analogy with : Cypermethrin cis/trans +/-40/60)

ECOTOXICITY :

* Effects on the aquatic environment : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
EC 50 (Algae) : 5.7 mg/l
EC 50 (Daphnia : Daphnia magna) / 96h : 0.0069 mg/l
LC 50 (Fish : rainbow trout) / 96h : 0.013 mg/l
(data obtained on a similar product)

13. DISPOSAL CONSIDERATIONS

WASTE FROM PRODUCT :

Prohibition : Discharging waste into rivers and drains is prohibited
Destruction/Disposal : Dispose of in accordance with relevant local regulations
Incinerate at a licensed installation

CONTAMINATED PACKAGING :

Destruction/disposal : Recycle following cleaning or dispose of at an authorised site

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATIONS :

* - UN No. 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Land transportation :
* - Rail/road (RID/ADR) : Class : 9
Classification code : M6
Packing group : III
Hazard identification number : 90
Labelling : 9
* Sea (IMO/IMDG) : Class : 9
Packing group : III
Labelling : 9
Marine pollutant : YES
* Air (ICAO-IATA) : Class : 9

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14. TRANSPORT INFORMATION
(continued)

 Packing group : III
 Labelling : 9

15. REGULATORY INFORMATION
EC LABELLING :

 Identification of the hazardous product : Contains :
 Active ingredient(s) : Zeta-cypermethrine : 100 g/l
 Other substance(s) : Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one

- Symbols and indications of danger :


- HARMFUL (Xn) - DANGEROUS FOR THE ENVIRONMENT (N)

- R phrases :

 R20/22 : Harmful by inhalation and if swallowed.
 R43 : May cause sensitization by skin contact.
 R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- S phrases :

 S1/2 : Keep locked up and out of reach of children.
 S13 : Keep away from food, drink and animal feedingstuffs.
 S24 : Avoid contact with skin.
 S37 : Wear suitable gloves.
 S46 : If swallowed seek medical advice immediately and show this container or label.
 S57 : Use appropriate container to avoid environmental contamination.
 S35 : This material and its container must be disposed of in a safe way.

- Additional phrases :

 The following must appear on the label :
 To avoid risks to man and the environment, comply with the instructions for use

The regulatory information given above only indicate the principal regulations specifically applicable to the product described in the MSDS

The cited basic community texts are being updated and transcribed in national law Refer to all applicable international, national and local regulations or provisions The user's attention is drawn to the possible existence of additional provisions which complete these regulations

16. OTHER INFORMATION
R phrases text of §2 & 3 :

 R20/22 : Harmful by inhalation and if swallowed.
 R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.
 R34 : Causes burns.
 R36/38 : Irritating to eyes and skin.
 R43 : May cause sensitization by skin contact.
 R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

*** Update :**

 This sheet was updated (refer to the date at the top of this page)
 Texts which have been modified since the previous version are marked with an asterisk (*)

Registered trademarks :

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This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.
 Besides, the attention of the user is drawn to the possible risk incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. He alone will take on the responsibility for taking the precautions involved by the use of the product.



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The aim of all the mandatory regulations mentioned is just to help the user to fulfil his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

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