SAFETY DATA SHEET

Minuet EW

Revision: Sections containing a revision or new information are marked with a ♣.

♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. **Product identifier** ..... **Minuet EW**
Contains zeta-cypermethrin and 1,2-benzisothiazol-3(2H)-one

1.2. **Relevant identified uses of the substance or mixture and uses advised against** ..... Can be used as insecticide only.

1.3. **Details of the supplier of the safety data sheet**

CHEMINOVA A/S, a subsidiary of FMC Corporation
Thyborønvej 78
DK-7673 Harboøre
Denmark
SDS.Ronland@fmc.com

1.4. **Emergency telephone number**

Medical emergencies:

Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Czech Republic: +420 224 919 293
+420 224 915 402
Denmark: +45 82 12 12 12
France: +33 (0) 1 45 42 59 59
Finland: +358 9 471 977
Hungary: +36 80 20 11 99
Ireland (Republic): +352 1 809 2166
Italy: +39 02 6610 1029
Lithuania: +370 523 62052
+370 687 53378
Luxembourg: +352 8002 5500
Netherlands: +31 30 274 88 88
Norway: +47 22 591300
Poland: +48 22 619 66 54
+48 22 619 08 97
Portugal: 808 250 143 (in Portugal only)
+351 21 330 3284
Romania: +40 21318 3606
Slovakia: +421 2 54 77 4 166
Slovenia: +386 41 650 500
Spain: +34 91 562 04 20
Sweden: +46 08-331231
112
Switzerland: 145
United Kingdom: 0870 600 6266 (in the UK only)
U.S.A. & Canada: +1 800 / 331-3148 (PROSAR)
All other countries: +1 651 / 632-6793 (PROSAR - Collect)

For leak, fire, spill or accident emergencies:

U.S.A.: +1 800 / 424 9300 (CHEMTREC)
All other countries: +1 703 / 527 3887 (CHEMTREC - Collect)

SECTION 2: HAZARDS IDENTIFICATION

2.1. **Classification of the substance or mixture**

Acute oral toxicity: Category 4 (H302)
Acute inhalation toxicity: Category 4 (H332)

Sensitisation – skin: Category 1 (H317)
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 1 (H410)

WHO classification ..... Class II: Moderately hazardous

Health hazards ..... The product is harmful by ingestion and inhalation. It may cause allergic reactions.

Environmental hazards ..... The product is very toxic to aquatic organisms.

2.2. **Label elements**

According to EU Reg. 1272/2008 as amended

Product identifier ..... Minuet EW
Contains zeta-cypermethrin and 1,2-benzisothiazol-3(2H)-one

Hazard pictograms (GHS07, GHS09)

Signal word ..... Warning

Hazard statements
H302 ..... Harmful if swallowed.
H317 ..... May cause an allergic skin reaction.
H332 ..... Harmful if inhaled.
H410 ..... Very toxic to aquatic life with long lasting effects.

Supplementary hazard statement
EUH401 ..... To avoid risks to human health and the environment, comply with the instructions of use.

Precautionary statements
P261 ..... Avoid breathing vapours.
P280 ..... Wear protective gloves.
P302+P352 ..... IF ON SKIN: Wash with plenty of soap and water.
P312 ..... Call a POISON CENTER or doctor/physician if you feel unwell.
P362+P364 ..... Take off contaminated clothing and wash it before reuse.
P501 ..... Dispose of contents/container as hazardous waste.

2.3. **Other hazards** ..... None of the ingredients in the product meets the criteria for being PBT or vPvB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances** ..... The product is a mixture, not a substance.

3.2. **Mixtures** ..... See section 16 for full text of hazard statements.

Active ingredient
Zeta-cypermethrin ..... Content: 12% by weight
CAS name ..... Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester

CAS no. 52315-07-8

IUPAC name ..... Mixture of the stereoisomers (S)-α-cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclo-propanecarboxylate, where the ratio of the (S);(1RS,3RS) isomeric pair to the (S);(1RS,3SR) isomeric pair lies in the ratio range 45-55 to 55-45 respectively

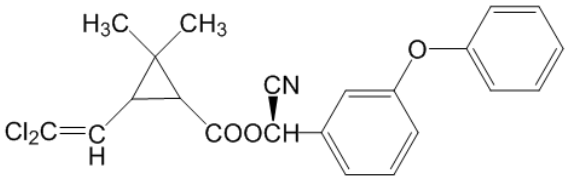
ISO name/EU name ..... Zeta-cypermethrin

EC no. (EINECS no.) 257-842-9

EU index no. 607-421-00-4

Classification of the ingredient ..... Acute oral toxicity: Category 3 (H301)
Acute inhalation toxicity: Category 4 (H332)
Specific target organ toxicity (single exposure): Category 3 (H335))
Hazards to the aquatic environment, acute: Category 1 (H400)
chronic: Category 1 (H410)

Structural formula .....



Reportable ingredients	Content (% w/w)	CAS no.	EC no. (EINECS no.)	Classification
Propane-1,2-diol Reg. no. 01-2119456809-23	6	57-55-6	200-338-0	Not classified
Poly(oxy-1,2-ethanediyl), α-tridecyl-ω-hydroxy-, phosphate, potassium salt	1	68186-36-7	None	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)
1,2-Benzisothiazol-3(2H)-one	Max. 0.02	2634-33-5	220-120-9	Acute Tox . 4 (H302) Skin Irrit 2 (H315) Eye Irrit. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400)

SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures** If exposure has occurred, do not wait for symptoms to develop, but immediately start the procedures described below.

Inhalation ..... If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

If breathing has stopped, immediately start artificial respiration and maintain until a physician takes charge of the exposed person.

Skin contact ..... Immediately remove contaminated clothing and footwear. Do not start with flushing with water, but wipe off with dry cloth or using talcum powder, followed by washing with water and soap. Thereafter apply lidocaine, vitamin E cream, fatty skin care oil or cream. See physician if contamination is severe or if feeling unwell.

Eye contact ..... Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. See physician immediately.

Ingestion ..... Call a doctor or get medical attention immediately. Make the exposed person rinse mouth and then drink 1 or 2 glasses of water or milk. Induce vomiting only if:
1. A significant amount (more than a mouthful) has been ingested
2. Patient is fully conscious
3. Medical aid is not readily available
4. Time since ingestion is less than one hour.

Let the patient induce vomiting by touching the back of the throat with a finger. If vomiting occurs, take care that vomit does not enter airways. Let the exposed person rinse mouth and drink fluids again.

4.2. **Most important symptoms and effects, both acute and delayed** Zeta-cypermethrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia).

4.3. **Indication of any immediate medical attention and special treatment needed** If any sign of poisoning occurs, call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to a pyrethroid insecticide. Describe his/her condition and the extent of exposure. Immediately remove the exposed person from the area where the product is present.

As soon as a feeling of tingling is noted in any skin area (see section 11), it is recommended to immediately apply lidocaine or a vitamin E cream. For this purpose lidocaine or vitamin E cream should be available at the workplace.

It may be helpful to show this safety data sheet to physician.

Notes to physician ..... A specific antidote against this substance is not known. Gastric lavage and administration of activated charcoal can be considered. Normally recovery is spontaneous.

If allowed to penetrate the skin, **zeta-cypermethrin** may cause an irritation similar to sunburn. The substance will be drawn into a non-polar environment such as a fat based oil or cream. Vitamin E cream has been reported to be beneficial. Water is highly polar and will not decrease, but may prolong the irritation. Hot water may increase the pain.

For eye contamination, instillation of local anaesthetic can be considered.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. **Extinguishing media** ..... Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.

5.2. **Special hazards arising from the substance or mixture** The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as hydrogen chloride, nitrogen oxides,

carbon monoxide, carbon dioxide and various chlorinated organic compounds. Traces of hydrogen cyanide may be present.

5.3. **Advice for firefighters** ..... Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-contained breathing apparatus and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions, protective equipment and emergency procedures**

It is recommended to have a plan for the avoidance of spills. If spillage does occur, it has to be removed and the area cleaned immediately according to a predetermined plan. It is recommended to clean area or equipment also if contamination is suspected.

Empty, sealable vessels for the collection of spills should be available.

In case of large spill (involving 10 tonnes of the product or more):
1. Use personal protection equipment; see section 8
2. Call emergency telephone no.; see section 1
3. Alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots.

Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Avoid and reduce formation of vapour or mist as much as possible.

6.2. **Environmental precautions** ..... Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

6.3. **Methods and materials for containment and cleaning up**

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with detergent and much water. Absorb wash liquid with absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

6.4. **Reference to other sections** ..... See subsection 8.2. for personal protection.
See section 13 for disposal.

SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for safe handling** .... In an industrial environment it is important to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Keep all unprotected persons and children away from working area.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and footwear. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after each use.

The work area should always be kept clean. Used personal protection equipment should either be thrown out or be cleaned immediately after use. Respirator should be cleaned and filter replaced according to instructions provided with respirator.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

7.2. **Conditions for safe storage, including any incompatibilities** The product is stable under normal conditions of warehouse storage.

Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading “POISON” is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

7.3. **Specific end use(s)** ..... The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

♣ SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control parameters**

Personal exposure limits ..... To our knowledge, no exposure limits have been established for the active ingredient in this product.

		Year	
Propane-1,2-diol	AIHA (USA) WEEL	2015	10 mg/m^3
	MAK (Germany)	2014	Cannot be established at present
	HSE (UK) WEL	2011	8-hr TWA 150 ppm (474 mg/m^3), total (vapour and particulates) 10 mg/m^3 (particulates)

However, other personal exposure limits defined by local regulations may exist and must be observed.

Zeta-cypermethrin

DNEL ..... 0.02 mg/kg bw/day
PNEC, aquatic environment ..... 0.0013 ng/l

Propane-1,2-diol

DNEL, inhalation, systemic ..... 183 mg/m^3
DNEL, inhalation, local ..... 10 mg/m^3
PNEC, fresh water ..... 260 mg/l
PNEC, marine water ..... 26 mg/l

8.2. **Exposure controls** ..... When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

In cases of incidental high exposure, maximal personal protection may be necessary, such as respirator, face mask, chemical resistant coveralls.

Respiratory protection — In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.

Protective gloves ..... Wear long chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves immediately if there is a suspicion of contamination. Be careful not to touch anything with contaminated gloves. Used gloves should be thrown out and not be reused. Wash hands with water and soap immediately after work is finished.

Eye protection ..... Wear face shield rather than goggles or safety glasses. The possibility of eye contact should be excluded.

Other skin protection — Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Information on physical and chemical properties**

Appearance	Light brown to beige liquid
Odour	Slight, acrid
Odour threshold	Not determined
pH	4.15
Melting point/freezing point	Not determined
Initial boiling point and boiling range	Not determined
Flash point	> 100°C
Evaporation rate	Not determined
Flammability (solid/gas)	Not applicable (liquid)
Upper/lower flammability or explosive limits	Not determined
Vapour pressure	**Zeta-cypermethrin** : 2.53 x 10^{-7} Pa at 25°C
Vapour density	Not determined
Relative density	1.0305 at 20°C
Solubility(ies)	Solubility of **zeta-cypemethrin** at 20°C in ethyl acetate > 1000 g/l n-heptane 40.12 g/l water 0.0387 mg/l
Partition coefficient n-octanol/water	**Zeta-cypermethrin** : log K_{ow} = 5 - 6 at 24°C
Autoignition temperature	> 600°C
Decomposition temperature	Not determined
Viscosity	Viscosity is dependent on shear rate 63 - 1081 mPa.s at 20°C 47 - 707 mPa.s at 40°C
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2. **Other information**

Miscibility ..... The product is dispersible in water.

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity** ..... To our knowledge, the product has no special reactivities.

10.2. **Chemical stability** ..... The product is stable during normal handling and storage at ambient temperatures.

10.3. **Possibility of hazardous reactions** None known.

10.4. **Conditions to avoid** ..... Heating of the product will evolve harmful and irritant vapours.

10.5. **Incompatible materials** ..... None known.

10.6. **Hazardous decomposition products** See subsection 5.2.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information on toxicological effects** * = Based on available data, the classification criteria are not met.

Product

Acute toxicity ..... The product is harmful by ingestion and inhalation, but is not considered harmful by skin contact. The acute toxicity is measured as:

Route(s) of entry - ingestion LD_{50}, oral, rat: 385 mg/kg

- skin LD_{50}, dermal, rabbit: > 2000 mg/kg *

- inhalation LC_{50}, inhalation, rat: 2.09 mg/l/4 h

Skin corrosion/irritation ..... May be mildly irritating to skin. *

Serious eye damage/irritation ..... May be mildly irritating to eyes. *

Respiratory or skin sensitisation ... Sensitising to skin.

Germ cell mutagenicity ..... The product contains no ingredient known to be mutagenic. *

Carcinogenicity ..... The product contains no ingredients known to be carcinogenic. *

Reproductive toxicity ..... The product contains no ingredients known to have adverse effects on reproduction. *

STOT – single exposure ..... No other specific effects after single exposure than mentioned elsewhere in this safety data sheet have been observed. *

STOT – repeated exposure ..... The following is measured om the active ingredient zeta-cypermethrin:
Target organ: nervous system.
Repeated exposure may cause neurotoxic effects. Various symptoms of toxicity (ataxia, decreased activity, dehydration) were observed in a 90-day oral test with rats at exposure levels of 70 mg/kg bw/day.

Aspiration hazard ..... The product does not present an aspiration pneumonia hazard. *

Symptoms and effects, acute and delayed On contact, zeta-cypermethrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia), which is harmless at low exposure, but can be quite painful, especially in the eye. The effect may result from splash, aerosol or transfer from contaminated gloves. The effect is transient, lasting up to 24 hours, but may in exceptional cases last longer. It may be considered as a warning that overexposure has occurred and that work practice should be reviewed.

If swallowed or inhaled small doses may produce non-specific symptoms (e.g. nausea, vomiting, diarrhoea). Larger doses may produce disturbance of the central nervous system (e.g. tremors, convulsions, coma).

Zeta-cypermethrin

Toxicokinetics, metabolism and distribution: After oral administration, zeta-cypermethrin is absorbed, initially widely distributed in the body and finally distributed mostly to the skin and fatty tissues. It is extensively metabolised. It is eliminated almost completely within 72 hours.

Acute toxicity .....: Zeta-cypermethrin is toxic if swallowed and harmful by inhalation. Toxicity by skin contact is less severe. Results for acute toxicity vary with study design and vehicle. The following results are mentioned in literature:

Route(s) of entry	- ingestion	LD_{50}, oral, rat (male): 134 -557 mg/kg
		LD_{50}, oral, rat (female): 86 - 1264 mg/kg
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg *
	- inhalation	LC_{50}, inhalation, rat: 1.26 - 2.5 mg/l/4 h

Skin corrosion/irritation .....: Not irritating to skin. *

Serious eye damage/irritation .....: Not irritating to eyes. *

Respiratory or skin sensitisation ...: Sensitising when measured according to method OECD 406.

Poly(oxy-1,2-ethanediyl), α-tridecyl-ω-hydroxy-, phosphate, potassium salt

Acute toxicity .....: The substance may be harmful by ingestion, but is considered as not harmful by skin contact or by inhalation. The acute toxicity is measured as:

Route(s) of entry	- ingestion	LD_{50}, oral, rat: > 2000 mg/kg
	- skin	LD_{50}, dermal, rat: not available
	- inhalation	LC_{50}, inhalation, rat: not available

Skin corrosion/irritation .....: Irritating to skin.

Serious eye damage/irritation .....: Severely irritating to eyes.

Respiratory or skin sensitisation ...: Not sensitising. *

1,2-Benzisothiazol-3(2H)-one

Acute toxicity .....: The substance is harmful by ingestion.

Route(s) of entry	- ingestion	LD_{50}, oral, rat (male): 670 mg/kg
		LD_{50}, oral, rat (female): 784 mg/kg (method OPPTS 870.1100, measured on 73% solution)
	- skin	LD_{50}, dermal, rat: > 2000 mg/kg * (method OPPTS 870.1200, measured on 73% solution)
	- inhalation	LC_{50}, inhalation, rat: not available

Skin corrosion/irritation ..... Slightly irritating to skin (method OPPTS 870.2500).

Serious eye damage/irritation ..... Severely irritating to eyes (method OPPTS 870.2400).

Respiratory or skin sensitisation ... Moderate dermal sensitizer to guinea pigs (method OPPTS 870.2600). The substance appears to be significantly more sensitising to humans.

SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity** ..... The product is extremely toxic to fish, aquatic invertebrates and insects. It is not considered as harmful to aquatic plants, soil micro- and macroorganisms and birds.

The following has been measured on the product:

- Fish: 96-h LC_{50}: 13 µg/l
- Daphnids: 48-h EC_{50}: 0.827 µg/l; 21-day NOEC: 0.1 µg/l
- Algae: 24-h E_rC_{50}: 1.6 mg/l

12.2. **Persistence and degradability** .... **Zeta-cypermethrin** is not readily biodegradable. Primary degradation half-lifetimes are generally a few weeks in aerobic soil, depending on circumstances.

The product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

12.3. **Bioaccumulative potential** ..... See section 9 for octanol-water partition coefficients.

Zeta-cypermethrin has the potential to bioaccumulate, but in view of its high acute toxicity to aquatic organisms, bioaccumulation is not relevant.

12.4. **Mobility in soil** ..... **Zeta-cypermethrin** is not mobile in the environment. It binds tightly to soil particles

12.5. **Results of PBT and vPvB assessment** ..... None of the ingredients meets the criteria for being PBT or vPvB.

12.6. **Other adverse effects** ..... Other relevant hazardous effects in the environment are not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods** ..... Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

Disposal of product ..... According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a

licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Disposal of packaging .....

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

It is recommended to consider possible ways of disposal in the following order:
1. Reuse or recycling should first be considered. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

♣ SECTION 14: TRANSPORT INFORMATION

ADR/RID/IMDG/IATA/ICAO classification

14.1.	**UN number**	3082
14.2.	**UN proper shipping name**	Environmentally hazardous substance, liquid, n.o.s. (zeta-cypermethrin)
14.3.	**Transport hazard class(es)**	9
14.4.	**Packing group**	III
14.5.	**Environmental hazards**	Marine pollutant
14.6.	**Special precautions for user**	Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.
14.7.	**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code**	The product is not transported in bulk by ship.

SECTION 15: REGULATORY INFORMATION

15.1.	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	Seveso category (Dir. 2012/18/EU): dangerous for the environment Young people under the age of 18 are not allowed to work with the substance. All ingredients are covered by EU chemical legislation.
15.2.	**Chemical safety assessment**	A chemical safety assessment is not required to be included for this product.

♣ SECTION 16: OTHER INFORMATION

Relevant changes in the safety data sheet ..... Minor corrections only.

List of abbreviations .....

AIHA	American Industrial Hygiene Association
CAS	Chemical Abstracts Service
Dir.	Directive
DNEL	Derived No Effect Level
EC	European Community
EC_{50}	50% Effect Concentration
E_rC_{50}	50% Effect Concentration based on growth
EINECS	European INventory of Existing Commercial Chemical Substances
EW	Emulsion, oil in Water
GHS	Globally Harmonized classification and labelling System of chemicals, Fifth revised edition 2013
HSE	Health & Safety Executive (UK)
IBC	International Bulk Chemical code
ISO	International Organisation for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	50% Lethal Concentration
LD_{50}	50% Lethal Dose
MAK	Maximale Arbeitsplatz-Konzentration
MARPOL	Set of rules from the International Maritime Organisation (IMO) for prevention of sea pollution
NOEC	No Observed Effect Concentration
n.o.s.	Not otherwise specified
OECD	Organisation for Economic Cooperation and Development
OPPTS	Office for Prevention, Pesticides and Toxic Substances
PBT	Persistent, Bioaccumulative, Toxic
PNEC	Predicted No Effect Concentration
Reg.	Regulation
STOT	Specific Target Organ Toxicity
TWA	Time Weighted Average
vPvB	very Persistent, very Bioaccumulative
WEEL	Workplace Environmental Exposure Level
WEL	Workplace Exposure Limit
WHO	World Health Organisation

References ..... Data measured on this product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Method for classification ..... Test data

Used hazard statements .....

H302	Harmful if swallowed.
H301	Toxic if swallowed.
H315	Causes skin irritation
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

H412	Harmful to aquatic life with long lasting effects.
EUH401	To avoid risks to human health and the environment, comply with the instructions of use.

Advice on training ..... This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

Prepared by: FMC Corporation / Cheminova A/S / GHB