

SAFETY DATA SHEET

Arrivo 25 EC

This safety data sheet complies with the requirements of:
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS # : 3766-A

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Version 2

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) 3766-A

Product Name Arrivo 25 EC

Synonyms CYPERMETHRIN (FMC 30980); (RS)- α -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name); cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label.

1.3. Details of the supplier of the safety data sheet

Supplier FMC LLC
, bld. 6 Andropova Prospekt,
Moscow, 115432,
Russia
Telephone: +7 495 783 9003
Fax: +7 495 783 9005
E-mail: SDS.Ronland@fmc.com

For further information, please contact:

Contact point (+45) 97 83 53 53 (24 h; for emergencies only)

1.4. Emergency telephone number

Emergency telephone Medical emergencies:

Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Cyprus: 1401
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
Greece: 30 210 77 93 777
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 08-331231112
Switzerland: 145
United Kingdom: 0870 600 6266 (in the UK only)
U.S.A. & Canada: +1 800 / 331-3148
All other countries: +1 651 / 632-6793 (Collect)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture *Regulation (EC) No 1272/2008*

Aspiration toxicity	Category 1
Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1B
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1
FLAMMABLE LIQUIDS	Category 3

2.2. Label elements

Hazard pictograms



Signal Word
Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways
H301 - Toxic if swallowed
H332 - Harmful if inhaled
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H410 - Very toxic to aquatic life with long lasting effects
H226 - Flammable liquid and vapor
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Precautionary Statements

P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool
P501: Dispose of contents/container as hazardous waste.
P270 - Do not eat, drink or smoke when using this product
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P330 - Rinse mouth
P331 - Do NOT induce vomiting
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P272 - Contaminated work clothing should not be allowed out of the workplace
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 + P364 - Take off all contaminated clothing and wash it before reuse
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P210 - Keep away from open flames/hot surfaces. - No smoking
P264 - Wash face, hands and any exposed skin thoroughly after handling
P321 - Specific treatment (see supplemental first aid instructions on this label)

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.

Chemical name	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Naphtha (petroleum), heavy aromatic	265-198-5	64742-94-5	60-70	Asp.Tox. 1 (H304) Carc. 2 (H351) Aquatic Chronic 2 (H411)	No data available
Cypermethrin	Present	52315-07-8	26	Acute Tox. 4 (H302) Acute Tox. 4 (H332) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Pseudocumene	Present	95-63-6	<22	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335) Aquatic Chronic 2 (H411) Flam. Liq. 3 (H226)	No data available
Xylenes	Present	1330-20-7	1-5	Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Flam. Liq. 3 (H226)	No data available
Cumene	Present	98-82-8	0,1-1	STOT SE 3 (H335) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) Flam. Liq. 3 (H226)	No data available

Additional Information

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye Contact	Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.
Ingestion	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Central nervous system effects, Allergic skin reactions.
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4.3. Indication of any immediate medical attention and special treatment needed

Indication of immediate medical attention and special treatment needed, if necessary	This product contains aromatic hydrocarbons that can produce a severe pneumonitis if aspirated during vomiting. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.
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Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Dry chemical or CO₂, Alcohol-resistant foam, Water spray. Avoid heavy hose streams.

Unsuitable extinguishing media

No information available

5.2. Special hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides (CO_x), Hydrogen cyanide, Chlorine, Hydrogen chloride.

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

Personal Precautions

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 10 tonnes of the product or more):

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.

For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

For emergency responders

Use personal protection recommended in Section 8.

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 material for containment and cleaning up**Methods for Containment**

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. Use non-sparking tools and equipment.

If appropriate, surface water drains should be covered. Minor spills on the floor or other impervious surface should immediately be swept up or preferably vacuumed up using equipment with high efficiency final filter. Transfer to suitable containers. Clean area with detergent and much water. Absorb wash liquid onto inert absorbent such as universal binder, Fuller's earth, bentonite or other absorbent clay and collect in suitable containers. The used containers should be properly closed and labelled.

Methods for cleaning up

Clean and neutralize spill area, tools and equipment by washing with water and soap. Absorb rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling**Handling**

In an industrial environment, it is recommended to avoid any personal contact with the product, if possible, using remotely controlled systems with remote control. Otherwise, it is recommended to process the material with maximum mechanical means. Adequate ventilation or local exhaust ventilation is required. Exhaust gases must be filtered or treated differently. For personal protection in this situation, see Section 8. Remove contaminated clothing and shoes. Wash thoroughly after handling. Use protective gloves made from chemicals such as nitrile or neoprene. Wash gloves with soap and water before reuse. Check regularly for leaks. Do not dispose into the environment. Do not contaminate water when disposing of the flushing water for equipment. Collect all waste and residues from cleaning equipment, etc. And dispose of them as hazardous waste. See Section 13 for disposal.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities**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)**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Chemical name	European Union	The United Kingdom	France	Spain	Germany
Pseudocumene 95-63-6	TWA 20 ppm TWA 100 mg/m ³	-	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³	TWA 20 ppm TWA 100 mg/m ³	-
Xylenes 1330-20-7	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ S*	STEL 100 ppm STEL 441 mg/m ³ TWA 50 ppm TWA 220 mg/m ³ Skin	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ P*	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ S*	-
Cumene 98-82-8	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ S*	STEL 50 ppm STEL 250 mg/m ³ TWA 25 ppm TWA 125 mg/m ³ Skin	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ P*	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ S*	-
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Pseudocumene 95-63-6	TWA 20 ppm TWA 100 mg/m ³	TWA 20 ppm TWA 100 mg/m ³	STEL 200 mg/m ³ TWA 100 mg/m ³	TWA 20 ppm TWA 100 mg/m ³	TWA 20 ppm TWA 100 mg/m ³
Xylenes 1330-20-7	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ Pelle*	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ C(A4) P*	Huid* STEL 442 mg/m ³ TWA 210 mg/m ³	TWA 50 ppm TWA 220 mg/m ³ STEL 100 ppm STEL 440 mg/m ³ iho*	TWA 25 ppm TWA 109 mg/m ³ H*
Cumene 98-82-8	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ Pelle*	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ P*	Huid* STEL 250 mg/m ³ TWA 100 mg/m ³	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ iho*	TWA 20 ppm TWA 100 mg/m ³ H*
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Pseudocumene 95-63-6	STEL 30 ppm STEL 150 mg/m ³ TWA 20 ppm TWA 100 mg/m ³	-	TWA 100 mg/m ³ STEL 170 mg/m ³	TWA 20 ppm TWA 100 mg/m ³ STEL 30 ppm STEL 125 mg/m ³	TWA 20 ppm TWA 100 mg/m ³ STEL 60 ppm STEL 300 mg/m ³
Xylenes 1330-20-7	STEL 100 ppm STEL 442 mg/m ³ TWA 50 ppm TWA 221 mg/m ³	H* TWA 100 ppm TWA 435 mg/m ³ STEL 200 ppm STEL 870 mg/m ³	TWA 100 mg/m ³ STEL 200 mg/m ³	TWA 25 ppm TWA 108 mg/m ³ S* STEL 37.5 ppm STEL 135 mg/m ³	TWA 50 ppm TWA 221 mg/m ³ STEL 100 ppm STEL 442 mg/m ³ Skin
Cumene 98-82-8	H* STEL 50 ppm STEL 250 mg/m ³ TWA 20 ppm TWA 100 mg/m ³	SS-C** H* TWA 20 ppm TWA 100 mg/m ³ C2 STEL 80 ppm STEL 400 mg/m ³	TWA 50 mg/m ³ STEL 250 mg/m ³	TWA 20 ppm TWA 100 mg/m ³ S* K** STEL 50 ppm STEL 250 mg/m ³	TWA 20 ppm TWA 100 mg/m ³ STEL 50 ppm STEL 250 mg/m ³ Skin
Chemical name	European Union	The United Kingdom	France	Spain	Germany
Pseudocumene 95-63-6	-	-	600	-	Biologische Grenzwerte nach TRGS 903 sind zu beachten
Xylenes 1330-20-7	-	650	1500	1	Biologische Grenzwerte nach TRGS 903 sind zu beachten Biologische Grenzwerte nach die Verordnung zur arbeitsmedizinischen Vorsorge vom 18. Dezember 2008 sind zu beachten
Cumene 98-82-8	-	-	-	-	Biologische Grenzwerte nach

					TRGS 903 sind zu beachten
Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Xylenes 1330-20-7	-	-	-	5.0	-
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Xylenes 1330-20-7	-	2	-	-	-
Cumene 98-82-8	-	20	-	-	-

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering measures Ensure adequate ventilation, especially in confined areas. . Ventilate all transport vehicles prior to unloading.

Personal protective equipment

Eye/Face Protection To protect against dust, splash, mist, or spray, wear safety glasses.

Hand Protection Wear chemical protective gloves made of materials such as nitrile or neoprene.

Skin and Body 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 appreciable or prolonged exposure, coveralls of barrier laminate may be required.

Respiratory Protection As a rule, during normal operation, the product does not create a dangerous concentration in the air, however, if discharged during production or when handling the product, vapors or mists may form. In this case it is necessary to use a filtering mask with a universal filter, including an aerosol filter.

Environmental exposure controls Avoid release to the environment.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Amber
Odor	Aromatic Solvent
Color	Amber
Odor threshold	No information available
pH	No information available
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	43,3 °C / 109,94 °F Tag Closed Cup
Evaporation Rate	No information available
Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	0,976
Water solubility	Emulsifies
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available

Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Relative density	8,08
Bulk density	No information available
K _{st}	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions

10.2. Chemical stability

Stable under recommended storage conditions.

Explosion data

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

10.3. Possibility of hazardous reactions**Hazardous polymerization**

Hazardous polymerization does not occur.

Hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents, Strong acids, Strong bases.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides (COx), Hydrogen cyanide, Chlorine, Hydrogen chloride,

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

LD50 Oral	137 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation	2,18 mg/L 4 hr (rat)

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Naphtha (petroleum), heavy aromatic	300-2000 mg/kg	> 2 mL/kg (Nyúl)	>5,2 mg/L
Pseudocumene	3280 mg/kg (Rat)	3160 mg/kg (Rabbit)	18 g/m ³ (Rat) 4 h
Xylenes	3500 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	11 mg/l (Rat) 4 h
Cumene	1400 mg/kg (Rat)	3160 mg/kg (Rabbit)	> 17,6 mg/L (Rat) 4 h

Skin corrosion/irritation	Moderately irritating (rabbit).
Serious eye damage/eye irritation	Mildly irritating (rabbit).
Sensitization	Sensitizer
Chronic toxicity	Cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight.
Mutagenicity	Cypermethrin: Not genotoxic in laboratory studies.
Carcinogenicity	No information available.
Reproductive toxicity	Cypermethrin: No toxicity to reproduction in animal studies.
Developmental toxicity	Cypermethrin: Not teratogenic in animal studies.
STOT - single exposure	May cause respiratory irritation. May cause drowsiness and dizziness.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure. See listed target organs below.
Neurological effects	Cypermethrin: Cause clinical signs of neurotoxicity (body tremors, decreased motor activity and impaired gait) following acute, subchronic or chronic exposure.
Target organ effects	Central Nervous System.
Symptoms	Signs of toxicity in laboratory animals included hypertonicity, ataxia, lethargy, convulsions, gasping, salivation, dyspnea, and alopecia. Large doses of cypermethrin ingested by laboratory animals produced signs of toxicity including loss of motor control, tremors, decreased activity, urinary incontinence, incoordination, increased sensitivity to sound and convulsions.
Aspiration hazard	Potential for aspiration if swallowed. May be fatal if swallowed and enters airways.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

The environmental impact of this product has not been fully investigated.

Cypermethrin (52315-07-8)				
Active Ingredient(s)	Duration	Species	Value	Units
	72 h EC50	Algae	> 0,1	mg/L
	21 d NOEC	Crustacea	0,04	µg/L
	21 d NOEC	Fish	0,03	µg/L
	96 h NOEC	Algae	1,3	mg/L
	96 h LC50	Rainbow trout	0,92	µg/L
	48 h EC50	Daphnia magna	1,86	µg/L

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Naphtha (petroleum), heavy aromatic	72 h EC50: = 2,5 mg/L (Skeletonema costatum)	96 h LC50: = 1740 mg/L (Lepomis macrochirus) static 96 h LC50: = 19 mg/L (Pimephales promelas) static 96 h LC50: = 2,34 mg/L (Oncorhynchus mykiss) 96 h LC50: = 41 mg/L (Pimephales promelas) 96 h LC50: = 45 mg/L (Pimephales promelas) flow-through	48 h EC50: = 0,95 mg/L (Daphnia magna)
Cypermethrin	>0,1 mg/L	0,69 µg/L (96 h); 0,015 µg/L (21 d)	0,14 µg/L (48 h); 0,01 µg/L (21d)
Pseudocumene	-	96 h LC50: 7,19 - 8,28 mg/L (Pimephales promelas) flow-through	48 h EC50: = 6,14 mg/L (Daphnia magna)

Xylenes	-	96 h LC50: 13,1 - 16,5 mg/L (Lepomis macrochirus) flow-through 96 h LC50: 13,5 - 17,3 mg/L (Oncorhynchus mykiss) 96 h LC50: 2,661 - 4,093 mg/L (Oncorhynchus mykiss) static 96 h LC50: 23,53 - 29,97 mg/L (Pimephales promelas) static 96 h LC50: 30,26 - 40,75 mg/L (Poecilia reticulata) static 96 h LC50: 7,711 - 9,591 mg/L (Lepomis macrochirus) static 96 h LC50: = 13,4 mg/L (Pimephales promelas) flow-through 96 h LC50: = 19 mg/L (Lepomis macrochirus) 96 h LC50: = 780 mg/L (Cyprinus carpio) semi-static 96 h LC50: > 780 mg/L (Cyprinus carpio)	48 h LC50: = 0,6 mg/L (Gammarus lacustris) 48 h EC50: = 3,82 mg/L (water flea)
Cumene	72 h EC50: = 2,6 mg/L (Pseudokirchneriella subcapitata)	96 h LC50: 6,04 - 6,61 mg/L (Pimephales promelas) flow-through 96 h LC50: = 2,7 mg/L (Oncorhynchus mykiss) semi-static 96 h LC50: = 4,8 mg/L (Oncorhynchus mykiss) flow-through 96 h LC50: = 5,1 mg/L (Poecilia reticulata) semi-static	48 h EC50: 7,9 - 14,1 mg/L (Daphnia magna) Static 48 h EC50: = 0,6 mg/L (Daphnia magna)

12.2. Persistence and degradability

Cypermethrin: Moderately persistent. Not easily hydrolyzed. Not easily biodegradable.

12.3. Bioaccumulative potential

Cypermethrin: The substance has a potential for bioconcentration.

Chemical name	Partition coefficient
Naphtha (petroleum), heavy aromatic	2,9 - 6,1
Pseudocumene	3,63
Xylenes	2,77 - 3,15
Cumene	3,7

12.4. Mobility in soil**Mobility in soil**

Cypermethrin: Immobile. Not expected to reach groundwater.

12.5. Results of PBT and vPvB assessment

None of the ingredients in the product meets the criteria for being PBT or vPvB.

12.6. Other adverse effects

No other adverse effects relevant to the environment are known.

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Cypermethrin	Group III Chemical	-	-

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods**Waste from residues / unused products**

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste. Dispose of as hazardous waste in compliance with local and national regulations. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do

not discharge to sewer systems.

Contaminated Packaging

Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions. It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. 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

IMDG/IMO

14.1 UN/ID no	UN3351
14.2 Proper Shipping Name	Pyrethroid pesticide, liquid, toxic, flammable
14.3 Hazard class	6,1 (3)
14.4 Packing Group	III
14.5 Marine Pollutant	Yes
Environmental Hazard	Yes
14.6 Special Provisions	None
EmS No.	F-E, S-D
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.

RID

14.1 UN/ID no	UN3351
14.2 Proper Shipping Name	Pyrethroid pesticide, liquid, toxic, flammable
14.3 Hazard class	6,1 (3)
14.4 Packing Group	III
Description	
14.5 Environmental Hazard	Yes
14.6 Special Provisions	Do not release to the environment

ADR/RID

14.1 UN/ID no	UN3351
14.2 Proper Shipping Name	Pyrethroid pesticide, liquid, toxic, flammable
14.3 Hazard class	6,1 (3)
14.4 Packing Group	III
Description	UN3351, Pyrethroid pesticide, liquid, toxic, flammable (Cypermethrin and Naphthapetroleum)
14.5 Environmental Hazard	Yes
14.6 Special Provisions	Do not release to the environment

ICAO/IATA

14.1 UN/ID no	UN3351
14.2 Proper Shipping Name	Pyrethroid pesticide, liquid, toxic, flammable
14.3 Hazard class	6,1 (3)
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	Do not release to the environment

Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)
This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not Applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

DANGEROUS FOR THE ENVIRONMENT

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not Applicable

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
Cypermethrin 52315-07-8			X		X	X	X	X
Pseudocumene 95-63-6	X	X	X	X	X	X	X	X
Xylenes 1330-20-7	X	X	X	X	X	X	X	X
Cumene 98-82-8	X	X	X	X	X	X	X	X

15.2. Chemical safety assessment

A chemical safety assessment is not required to be included for this product.

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under sections 2 and 3

H301 - Toxic if swallowed

H304 - May be fatal if swallowed and enters airways

H332 - Harmful if inhaled

H319 - Causes serious eye irritation

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H312 - Harmful in contact with skin

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Legend

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS:	CAS (Chemical Abstracts Service)
Ceiling:	Maximum limit value:
DNEL:	Derived No Effect Level (DNEL)
EINECS:	EINECS (European Inventory of Existing Chemical Substances)
GHS:	Globally Harmonized System (GHS)
IATA:	International Air Transport Association (IATA)
ICAO:	International Civil Aviation Organization
IMDG:	International Maritime Dangerous Goods (IMDG)
LC50:	LC50 (lethal concentration)
LD50:	LD50 (lethal dose)
PBT:	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
RID:	Regulations Concerning the International Transport of Dangerous Goods by Rail
STEL:	Short term exposure limit
SVHC:	SVHC: Substances of Very High Concern for Authorization:
TWA:	time weighted average
vPvB:	very Persistent and very Bioaccumulative

Classification procedure

Test data
Calculation method

Key literature references and sources for data

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

Revision date: 2019-05-12

Reason for revision: SDS sections updated.

Training Advice 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.

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End of Safety Data Sheet