

SAFETY DATA SHEET

Bestox 7.5 ULV

SDS # : 1037-A
Revision date: 2016-05-26
Format: NA
Version 1.02



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Bestox 7.5 ULV

Other means of identification

Product Code(s) 1037-A

Synonyms FMC 65318: A racemate comprising (S)- α -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (R)- α -cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate: [1 α (S*),3 α](\pm)-cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

Active Ingredient(s) Alpha-cypermethrin

Chemical Family Pyrethroid Pesticide

Recommended use of the chemical and restrictions on use

Recommended Use: Insecticide

Restrictions on Use: Use as recommended by the label

Manufacturer Address

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
(215) 299-6000 (General Information)
msdsinfo@fmc.com (E-Mail General Information)

Emergency telephone number

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

Medical Emergencies:
1 800 / 331-3148 (PROSAR - U.S.A. & Canada)
1 651 / 632-6793 (PROSAR - All Other Countries - Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4

Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1B
Carcinogenicity	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 4

GHS Label elements, including precautionary statements**EMERGENCY OVERVIEW****Danger****Hazard Statements**

H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H313 - May be harmful in contact with skin
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H351 - Suspected of causing cancer

Physical Hazards

H227 - Combustible liquid

**Precautionary Statements - Prevention**

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P281 - Use personal protective equipment as required
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

P321 - Specific treatment (see supplemental first aid instructions on this label)
P308 + P313 - If exposed or concerned: Get medical advice/attention
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
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor
P331 - Do NOT induce vomiting
P330 - Rinse mouth
P370 + P378 - In case of fire: Use Carbon dioxide (CO2). Foam. Dry chemical. Water spray for extinction

Precautionary Statements - Storage

P405 - Store locked up
P403 + P235 - Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Pyrethroid Pesticide.

Chemical name	CAS-No	Weight %
Alpha-cypermethrin	67375-30-8	0.87
Petroleum distillates, solvent dewaxed light paraffinic	64742-56-9	60-70
Naphtha (petroleum), heavy aromatic	64742-94-5	10-20
Petroleum distillates, solvent dewaxed heavy paraffinic	64742-65-0	10-20
Pseudocumene	95-63-6	1-10
Cumene	98-82-8	0.1-1

Synonyms are provided in Section 1.

4. FIRST AID MEASURES

Eye Contact	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin Contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
Inhalation	Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
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 chemical antidote. Do not give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Central nervous system effects. Causes serious eye irritation.
Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically. Contains petroleum distillate. Vomiting may cause aspiration pneumonia. This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Carbon dioxide (CO ₂). Foam. Dry chemical. Water spray.
Specific Hazards Arising from the Chemical	Combustible liquid
Explosion data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Yes.
Protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.
Other	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.
Methods for Containment	Dike to prevent runoff.
Methods for cleaning up	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Clean and neutralize spill area, tools and equipment by washing with bleach 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.

7. HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
Storage	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.
Incompatible products	No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Pseudocumene (95-63-6)	-	-	TWA: 25 ppm TWA: 125 mg/m ³	-
Cumene (98-82-8)	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ S*	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³	Mexico: TWA 50 ppm Mexico: TWA 245 mg/m ³ Mexico: STEL 75 ppm Mexico: STEL 365 mg/m ³
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Cumene (98-82-8)	TWA: 25 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 246 mg/m ³	TWA: 50 ppm	TWA: 50 ppm TWA: 246 mg/m ³

Appropriate engineering controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	For dust, splash, mist or spray exposure, wear chemical protective goggles.
Skin and Body Protection	Wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and headgear.
Hand Protection	Protective gloves
Respiratory Protection	For dust, splash, mist or spray exposures wear a elastomeric full-face or half mask respirator with appropriate cartridges and/or filters which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization).

Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.
General information	If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Light brown Liquid
Physical State	Liquid
Color	Light brown
Odor	Hydrocarbon-like
Odor threshold	No information available
pH	No information available
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	62 °C / 143.6 °F Tag Closed Cup
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
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
Density	860 g/L
Specific gravity	0.860 @ 20 °C
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
Molecular weight	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks
Incompatible materials	No information available.
Hazardous Decomposition Products	Carbon oxides (COx), Hydrogen chloride, Hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	Alpha-cypermethrin: 474 mg/kg (rat)
LD50 Dermal	Alpha-cypermethrin: > 2000 2,000 mg/kg (rabbit)
LC50 Inhalation	Alpha-cypermethrin: > 0.32 mg/L 4 hr (rat)

Serious eye damage/eye irritation Moderately irritating (rabbit).
Skin corrosion/irritation Moderately irritating (rabbit).
Sensitization Sensitizer

Information on toxicological effects

Symptoms Large toxic doses administered to laboratory animals have produced symptoms such as loss of muscle control, tremors, convulsions, wheezing, lacrimation and labored respiration.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic toxicity Alpha-cypermethrin: Long-term exposure caused neurotoxicity (body tremors, irregular gait, excessive salivation), decreased body weight gains and increased liver weights.
Mutagenicity Alpha-cypermethrin: Not genotoxic in laboratory studies.
Carcinogenicity Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.
Neurological effects Alpha-cypermethrin: Causes clinical signs of neurotoxicity (body tremors, irregular gait, excessive salivation) following acute, subchronic or chronic exposure.
Reproductive toxicity Alpha-cypermethrin: No toxicity to reproduction in animal studies.
Developmental toxicity Alpha-cypermethrin: Not teratogenic in animal studies.
STOT - single exposure Not classified.
STOT - repeated exposure Not classified.
Target organ effects Central Nervous System
Neurological effects Alpha-cypermethrin: Causes clinical signs of neurotoxicity (body tremors, irregular gait, excessive salivation) following acute, subchronic or chronic exposure.

Aspiration hazard Potential for aspiration if swallowed. May be fatal if swallowed and enters airways.

Chemical name	ACGIH	IARC	NTP	OSHA
Alpha-cypermethrin 67375-30-8		Group 2A		
Petroleum distillates, solvent dewaxed light paraffinic 64742-56-9	A2	Group 1	Known	
Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0	A2	Group 1	Known	
Cumene 98-82-8		Group 2B	Reasonably Anticipated	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

12. ECOLOGICAL INFORMATION

Ecotoxicity

Alpha-cypermethrin (67375-30-8)				
Active Ingredient(s)	Duration	Species	Value	Units
Alpha-cypermethrin	48 h EC50	Crustacea	0.0003	mg/L
	96 h LC50	Fish	0.0028	mg/L
	72 h EC50	Algae	0.1	mg/L
	21 d NOEC	Crustacea	0.03	µg/L
	21 d NOEC	Fish	0.03	µg/L

Persistence and degradability Alpha-cypermethrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.

Bioaccumulation Alpha-cypermethrin: The substance has a potential for bioconcentration.

Mobility Alpha-cypermethrin: Immobile; Not expected to reach groundwater.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

Contaminated Packaging Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

14. TRANSPORT INFORMATION

DOT This material is a Combustible liquid and is, therefore, not subject to the hazardous materials regulations when in non-bulk packages shipped within the USA per 49 CFR §173.150(f)(2).

UN/ID no	NA1993
Proper Shipping Name	Combustible liquid, n.o.s
Hazard class	Combustible
Packing Group	III
Description	NA1993, Combustible liquid, n.o.s. (aromatic hydrocarbons), PGIII

TDG Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard class	9
Packing Group	III
Marine Pollutant	Alpha-cypermethrin.
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (alpha-cypermethrin), 9, PGIII, Marine Pollutant

ICAO/IATA

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard class	9
Packing Group	III
Special Provisions	A3, A4
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (alpha-cypermethrin), 9, PGIII, Marine Pollutant

IMDG/IMO

UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard class	9
Packing Group	II
EmS No.	F-A, S-F
Marine Pollutant	Alpha-cypermethrin
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (alpha-cypermethrin), 9, PGIII, Marine Pollutant

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical

or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Pseudocumene - 95-63-6	95-63-6	1-10	1.0
Cumene - 98-82-8	98-82-8	0.1-1	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Xylenes 1330-20-7	100 lb			X
Acetic Acid 64-19-7	5000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Xylenes 1330-20-7	100 lb 45.4 kg	
Acetic Acid 64-19-7	5000 lb 2270 kg	
Cumene 98-82-8	5000 lb 2270 kg	

FIFRA Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING

May be fatal if swallowed or inhaled. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

This product is extremely toxic to fish and aquatic invertebrates.

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical name	California Prop. 65
Cumene - 98-82-8	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Petroleum distillates, solvent dewaxed light paraffinic		X	

64742-56-9			
Pseudocumene 95-63-6	X	X	X
Cumene 98-82-8	X	X	X

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Alpha-cypermethrin 67375-30-8					X	X	X	
Petroleum distillates, solvent dewaxed light paraffinic 64742-56-9	X	X	X		X	X	X	X
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X	X	X	X	X	X
Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0	X	X	X		X	X	X	X
Pseudocumene 95-63-6	X	X	X	X	X	X	X	X
Cumene 98-82-8	X	X	X	X	X	X	X	X

Mexico - Grade

Moderate risk, Grade 2

Chemical name	Carcinogen Status	Mexico
Cumene		Mexico: TWA 50 ppm Mexico: TWA 245 mg/m ³ Mexico: STEL 75 ppm Mexico: STEL 365 mg/m ³

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use - Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Xylenes	1000 5000 kg/yr	1000 kg/yr
Cumene	1000 5000 kg/yr	1000 kg/yr

WHMIS Hazard Class

B3 - Combustible liquid
D2A - Very toxic materials
D2B - Toxic materials



16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 2	Instability 0	Special Hazards -
HMIS	Health Hazards 2*	Flammability 2	Physical hazard 0	Personal Protection X

*Indicates a chronic health hazard.

Revision date: 2016-05-26
Reason for revision: (M)SDS sections updated

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End of Safety Data Sheet