SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

CB-80 INSECTICIDE

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02/17/2026	50001593	Date of first issue: 02/17/2026

SECTION 1. IDENTIFICATION

Product identifier
Product name CB-80 INSECTICIDE

Other means of identification
Product code 50001593

Recommended use of the chemical and restrictions on use
Recommended use Insecticide

Restrictions on use Use as recommended by the label.

Manufacturer or supplier's details
Manufacturer
FMC Corporation
2929 WALNUT ST
PHILADELPHIA PA 19104
USA
+1 (215) 299-6000 (Corporate)
SDS-Info@fmc.com, +1-(800)-346-0833 (FMC Cust. Service)

Supplier Address
FMC Corporation
2929 Walnut Street
Philadelphia PA 19104
USA

Emergency telephone
For leak, fire, spill or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A.)
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical emergency:
U.S.A. & Canada: +1 800 / 331-3148
All other countries: +1 651 / 632-6793 (Collect)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable aerosols	:	Category 2
Acute toxicity (Inhalation)	:	Category 4
Eye irritation	:	Category 2A

Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :

Signal Word : DANGER

Hazard Statements :
H223 Flammable aerosol.
H304 May be fatal if swallowed and enters airways.
H312 + H332 Harmful in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Precautionary Statements :

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P243 Take action to prevent static discharges.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ 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.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C (122 °F).

Disposal:

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

Other hazards

Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
1,1-difluoroethane	75-37-6	>= 15 - <= 40
propan-2-ol	67-63-0	>= 15 - <= 30
Distillates (petroleum), hydro- treated light; Kerosine — unspecified	64742-47-8	>= 7 - <= 13
piperonyl butoxide (ISO)	51-03-6	4
pyrethrins including cinerins	8003-34-7	0.5

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
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.

In case of skin contact : Take off all contaminated clothing immediately.
Wash contaminated clothing before re-use.
Wash off immediately with plenty of water for at least 15 minutes.
If skin irritation persists, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed	:	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	:	May be fatal if swallowed and enters airways. Harmful in contact with skin or if inhaled. Causes serious eye irritation.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing Avoid inhalation, ingestion and contact with skin and eyes. If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet Do not spread spilled material with high-pressure water streams.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Fire may produce irritating, corrosive and/or toxic gases.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for fire-fighters	:	Firefighters should wear protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Mark the contaminated area with signs and prevent access to unauthorized personnel. Only qualified personnel equipped with suitable protective equipment may intervene. For disposal considerations see section 13.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	:	Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
1,1-difluoroethane	75-37-6	TWA	1,000 ppm	US WEEL
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		TWA	400 ppm 980 mg/m3	OSHA P0
		STEL	500 ppm 1,225 mg/m3	OSHA P0
Distillates (petroleum), hydrotreated light; Kerosine — unspecified	64742-47-8	TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL
pyrethrins including cinerins	8003-34-7	TWA	5 mg/m3	
		TWA	5 mg/m3	ACGIH
		TWA	5 mg/m3	NIOSH REL
		TWA	5 mg/m3	OSHA Z-1
		TWA	5 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
propan-2-ol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn.

Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material	:	Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Protective measures	:	Plan first aid action before beginning work with this product. Always have on hand a first-aid kit, together with proper instructions. Ensure that eye flushing systems and safety showers are located close to the working place. Wear suitable protective equipment.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Form	:	aerosol
Color	:	yellow
Odor	:	Chemical smell
Odor Threshold	:	No data available

pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	57.9 °F / 14.4 °C
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	0.8746
Density	:	0.874 g/cm3 7.29 lb/gal
Bulk density	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapors may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Harmful in contact with skin or if inhaled.

Product:

Acute oral toxicity	:	LD50 Oral (Rat): 2,370 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 2.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2,000 mg/kg

Components:

1,1-difluoroethane:

Acute inhalation toxicity	:	LC50 (Rat, male): 437500 ppm Exposure time: 4 h Test atmosphere: gas

propan-2-ol:

Acute oral toxicity	:	LD50 (Rat): 5,840 mg/kg
Acute inhalation toxicity	:	LC0 (Rat, male and female): 10000 ppm Exposure time: 6 h Test atmosphere: vapor Remarks: no mortality
Acute dermal toxicity	:	LD50 (Rabbit): 16.4 mL/kg

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Acute oral toxicity : LD50 (Rat, male and female): > 15,000 mg/kg
Method: OECD Test Guideline 423
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC0 (Rat, male and female): > 5.28 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: OECD Test Guideline 403
Remarks: Based on data from similar materials
no mortality

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

piperonyl butoxide (ISO):

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 423
Remarks: no mortality

Acute inhalation toxicity : LC0 (Rat, male and female): > 5.2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Remarks: no mortality

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Remarks: no mortality

pyrethrins including cinerins:

Acute oral toxicity : LD50 (Rat): 200 mg/kg

Acute inhalation toxicity : LC50 (Rat): 3.4 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rat): 1,350 mg/kg

LD50 (Rabbit): 300 mg/kg

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Assessment : Not classified as irritant
Result : Based on available data, the classification criteria are not met.
Remarks : May cause skin irritation in susceptible persons.

Remarks : May cause skin irritation in susceptible persons.

Components:

propan-2-ol:

Species : Rabbit
Result : No skin irritation

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Assessment : Repeated exposure may cause skin dryness or cracking.

piperonyl butoxide (ISO):

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

pyrethrins including cinerins:

Result : slight irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks : May cause mild irritation.

Remarks : May cause irreversible eye damage.

Components:

propan-2-ol:

Species : Rabbit
Result : Irritation to eyes, reversing within 21 days

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

piperonyl butoxide (ISO):

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

pyrethrins including cinerins:

Result : slight irritation

Respiratory or skin sensitization

Skin sensitization

Based on available data, the classification criteria are not met.

Respiratory sensitization

Based on available data, the classification criteria are not met.

Product:

Assessment	:	Not classified as irritant
Result	:	Substance is not considered to be potential skin sensitiser.
Remarks	:	May cause sensitization of susceptible persons by skin contact.

Components:

propan-2-ol:

Test Type	:	Buehler Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Test Type	:	Maximization Test
Routes of exposure	:	Intradermal
Species	:	Guinea pig
Result	:	Does not cause skin sensitization.
Remarks	:	Based on data from similar materials

piperonyl butoxide (ISO):

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Components:

1,1-difluoroethane:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: positive

Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Rat (male and female) Application Route: inhalation (gas) Method: OECD Test Guideline 474 Result: negative

propan-2-ol:

Genotoxicity in vitro	:	Test Type: In vitro mammalian cell gene mutation test Result: negative Test Type: reverse mutation assay Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse (male and female) Application Route: Intraperitoneal injection Result: negative
Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse (male and female) Application Route: Intraperitoneal injection Result: negative Remarks: Based on data from similar materials

piperonyl butoxide (ISO):

Genotoxicity in vitro	:	Test Type: reverse mutation assay Test system: TA98 Method: OECD Test Guideline 471 Result: negative Test Type: gene mutation test Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476 Result: negative Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells Method: OECD Test Guideline 473 Result: negative
Genotoxicity in vivo	:	Species: Rat (male)

Application Route: Oral
Result: negative

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Based on available data, the classification criteria are not met.

Components:

propan-2-ol:

Species	:	Rat, male and female
Application Route	:	Inhalation
Exposure time	:	104 weeks
Dose	:	0, 500, 2500, 5000 ppm
NOAEL	:	5,000 ppm
Method	:	OECD Test Guideline 451
Result	:	negative

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Species	:	Rat, male
Application Route	:	inhalation (vapor)
Exposure time	:	105 weeks
NOAEC	:	0.138 mg/l
Result	:	positive
Remarks	:	Based on data from similar materials

Carcinogenicity - Assessment : The observed tumors do not appear to be relevant for men.

piperonyl butoxide (ISO):

Species	:	Rat, male and female
Application Route	:	Oral
Exposure time	:	107 weeks
Dose	:	0, 250, 500 mg/kg body weight
	:	500 mg/kg bw/day
Method	:	OECD Test Guideline 451
Result	:	negative

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Components:

propan-2-ol:

Effects on fertility	:	Test Type: Two-generation study Species: Rat, male and female Application Route: Oral Dose: 100, 500, 1000 mg/kgbw/day General Toxicity Parent: LOAEL: 1,000 mg/kg bw/day General Toxicity F1: NOAEL: 1,000 mg/kg bw/day Result: negative
Effects on fetal development	:	Test Type: reproductive and developmental toxicity study Species: Rat Application Route: Oral Dose: 400,800,1200 mg/kgbw Duration of Single Treatment: 28 d General Toxicity Maternal: LOAEL: 800 mg/kg bw/day Developmental Toxicity: LOAEL: 800 mg/kg bw/day Result: negative
Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Effects on fertility	:	Test Type: Fertility Species: Rat, male and female Application Route: inhalation (vapor) Duration of Single Treatment: 14 Weeks General Toxicity Parent: NOAEC: 2.2 mg/l Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Oral General Toxicity Maternal: NOAEL: 500 mg/kg body weight Teratogenicity: NOAEL: 2,000 mg/kg body weight Remarks: Developmental effects are a consequence of maternal toxicity.

piperonyl butoxide (ISO):

Effects on fertility	:	Species: Mouse, male and female Application Route: Oral Dose: 90, 180, 360, 720 mg/kg bw General Toxicity F1: LOAEL: 90 mg/kg bw/day

General Toxicity F2: LOAEL: 180 mg/kg bw/day
Method: OECD Test Guideline 416

Effects on fetal development : Species: Rat
Application Route: Oral
Dose: 630, 1065, 1800 mg/kg bw
General Toxicity Maternal: NOAEL: 630 mg/kg bw/day
Developmental Toxicity: NOAEL: 630 mg/kg bw/day
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the off-spring were detected only at high maternally toxic doses

Species: Rat
Application Route: Oral
Dose: 630, 1065, 1800 mg/kg bw
General Toxicity Maternal: LOAEL: 1,065 mg/kg bw/day
Developmental Toxicity: LOAEL: 1,065 mg/kg bw/day
Method: OECD Test Guideline 414
Result: Embryotoxic effects and adverse effects on the off-spring were detected only at high maternally toxic doses

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

STOT-single exposure

Based on available data, the classification criteria are not met.

Components:

propan-2-ol:

Assessment : May cause drowsiness or dizziness.

piperonyl butoxide (ISO):

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Components:

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

piperonyl butoxide (ISO):

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

propan-2-ol:

Species	:	Rat, male and female
NOAEL	:	5000 ppm
Application Route	:	Inhalation
Test atmosphere	:	vapor
Exposure time	:	104 weeks
Dose	:	0, 500, 2500, 5000 ppm
Method	:	OECD Test Guideline 451

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Species	:	Rat
NOAEL	:	>= 200 ppm
Application Route	:	inhalation (vapor)
Exposure time	:	13 weeks
Remarks	:	Based on data from similar materials

piperonyl butoxide (ISO):

Species	:	Rat, male and female
LOAEL	:	250 mg/kg
Application Route	:	Oral
Dose	:	0, 250, 500 mg/kg bw/day

Species	:	Rat, male and female
NOAEL	:	0.16 mg/l
LOAEL	:	0.512 mg/l
Application Route	:	Inhalation
Test atmosphere	:	dust/mist
Dose	:	0.015, 0.074, 0.16, 0.51 mg/L
Symptoms	:	Liver effects

Species	:	Rabbit, male and female
NOAEL	:	100 mg/kg
LOAEL	:	300 mg/kg
Application Route	:	Dermal
Dose	:	100, 300, 1000 mg/kg bw/day
Method	:	OECD Test Guideline 410
Symptoms	:	skin changes, desquamation, Fissuring

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Further information

Product:

Remarks : Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

1,1-difluoroethane:

Toxicity to fish : LC50 (Fish): 295.783 mg/l
Exposure time: 96 h
Method: QSAR

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 146.695 mg/l
Exposure time: 48 h
Method: QSAR

Toxicity to algae/aquatic plants : EC50: 168.276 mg/l
Exposure time: 96 h
Method: QSAR

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): 141.3 mg/kg
Exposure time: 14 d

propan-2-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 10,000 mg/l
Exposure time: 24 h
Test Type: static test

Toxicity to algae/aquatic plants : EC10 (Scenedesmus quadricauda (Green algae)): 1,800 mg/l
Exposure time: 7 d
Test Type: static test

Toxicity to microorganisms : (Pseudomonas putida): 1,050 mg/l
Exposure time: 16 h
Test Type: Cell multiplication inhibition test

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1,000 mg/l
Exposure time: 96 h
Test Type: semi-static test
Remarks: water accommodated fractions (WAF)

Toxicity to daphnia and other aquatic invertebrates	:	LL50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Test Type: static test Remarks: water accommodated fractions (WAF)
Toxicity to algae/aquatic plants	:	NOELR (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 EL50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	:	NOELR (Oncorhynchus mykiss (rainbow trout)): 0.173 mg/l Exposure time: 28 d Method: QSAR Remarks: No toxicity at the limit of solubility. water accommodated fractions (WAF)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOELR (Daphnia magna (Water flea)): 1.22 mg/l Exposure time: 21 d Method: QSAR Remarks: No toxicity at the limit of solubility. water accommodated fractions (WAF)
Toxicity to microorganisms	:	EL50 (Tetrahymena pyriformis): > 1,000 mg/l Exposure time: 48 h Method: QSAR

piperonyl butoxide (ISO):

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 7.07 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1.007 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 0.85 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 NOEC (Desmodesmus subspicatus (green algae)): 0.37 mg/l Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

pyrethrins including cinerins:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.003 - 0.0046 mg/l
Exposure time: 96 h
Test Type: flow-through test

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.0031 - 0.0038 mg/l
Exposure time: 96 h
Test Type: flow-through test

LC50 (Pimephales promelas (fathead minnow)): 0.0425 - 0.121 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 12 µg/l

Toxicity to algae/aquatic plants : EC50 (algae): >= 1.27 mg/l

Toxicity to soil dwelling organisms : LC50 (worms): 47 mg/kg

Toxicity to terrestrial organisms : LD50 (Anas platyrhynchos (Mallard duck)): > 5,620 mg/kg

LD50 (Apis mellifera (bees)): 0.022 µg/bee

Persistence and degradability

Components:

propan-2-ol:

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 50 %
Exposure time: 5 d

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Biodegradability : Concentration: 50 mg/l
Result: Readily biodegradable.
Biodegradation: 89.9 %
Exposure time: 28 d

Method: OECD Test Guideline 301

piperonyl butoxide (ISO):

Biodegradability : aerobic
Inoculum: activated sludge
Concentration: 2 mg/l
Result: Not readily biodegradable.
Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential

Components:

1,1-difluoroethane:

Bioaccumulation : Bioconcentration factor (BCF): 3.2

Partition coefficient: n-octanol/water : Pow: 1.13

propan-2-ol:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 0.05 (77 °F / 25 °C)

Distillates (petroleum), hydro- treated light; Kerosine — unspecified:

Bioaccumulation : Bioconcentration factor (BCF): 144.3
Method: QSAR

piperonyl butoxide (ISO):

Bioaccumulation : Bioconcentration factor (BCF): 39.06
Method: QSAR

Partition coefficient: n-octanol/water : log Pow: 5 (77 °F / 25 °C)
Method: Regulation (EC) No. 440/2008, Annex, A.8

pyrethrins including cinerins:

Partition coefficient: n-octanol/water : log Pow: 6.15

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

Global warming potential

Global Warming Potentials - 40CFR Part 98 -Table A-1 to SubPart A.

Components:

1,1-difluoroethane:

100-year global warming potential: 138
Further information: Saturated Hydrofluorocarbons (HFCs) With Three or More Carbon-Hydrogen Bonds, The GWP for this compound was updated in the final rule published on November 29, 2013 [78 FR 71904] and effective on January 1, 2014., The GWP for this compound was updated in the final rule published on April 25, 2024 and effective on January 1, 2025.

Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) of the United Nations Framework Convention on Climate Change (UNFCCC)

Components:

1,1-difluoroethane:

20-year global warming potential: 591
100-year global warming potential: 164
500-year global warming potential: 46.8
Atmospheric lifetime: 1.6 yr
Radiative efficiency: 0.102 Wm2ppb
Further information: Hydrofluorocarbons

UNEP - Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer

Components:

1,1-difluoroethane:

100-year global warming potential: 124
Further information: Annex F - Group I: HFCs

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS (1,1-Difluoroethane, Isopropanol)
Class	:	2.1
Subsidiary risk	:	6.1
Packing group	:	Not assigned by regulation
Labels	:	2.1 (6.1)
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 1950
Proper shipping name	:	Aerosols, flammable (1,1-Difluoroethane, Isopropanol)
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	Flammable Gas
Packing instruction (cargo aircraft)	:	203
Packing instruction (passenger aircraft)	:	203
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 1950
Proper shipping name	:	AEROSOLS (1,1-Difluoroethane, Isopropanol)
Class	:	2.1
Subsidiary risk	:	6.1
Packing group	:	Not assigned by regulation
Labels	:	2.1 (6.1)
EmS Code	:	F-D, S-U
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR Road

UN/ID/NA number	:	UN 1950

Proper shipping name	:	Aerosols (, Isopropanol)
Class	:	2.1
Packing group	:	Not assigned by regulation
Labels	:	FLAMMABLE GAS
ERG Code	:	126
Marine pollutant	:	yes

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
pyrethrins including cinerins	8003-34-7	1	200

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

propan-2-ol	67-63-0	>= 10 - < 20 %
piperonyl butoxide (ISO)	51-03-6	>= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

1,1-difluoroethane	75-37-6	>= 30 - < 50 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

1,1-difluoroethane	75-37-6	>= 30 - < 50 %
propan-2-ol	67-63-0	>= 10 - < 20 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

pyrethrins including cinerins	8003-34-7	>= 0.1 - < 1 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

1,1-difluoroethane	75-37-6
propan-2-ol	67-63-0
Distillates (petroleum), hydro- treated light; Kerosine — unspecified	64742-47-8

Pennsylvania Right To Know

1,1-difluoroethane	75-37-6
propan-2-ol	67-63-0
Distillates (petroleum), hydro- treated light; Kerosine — unspecified	64742-47-8
piperonyl butoxide (ISO)	51-03-6
pyrethrins including cinerins	8003-34-7

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California Prop. 65

WARNING: This product can expose you to chemicals including Distillates (petroleum), hydro-treated light; Kerosine — unspecified, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances

propan-2-ol	67-63-0
Distillates (petroleum), hydro- treated light; Kerosine — unspecified	64742-47-8

California Permissible Exposure Limits for Chemical Contaminants

propan-2-ol	67-63-0
Distillates (petroleum), hydro- treated light; Kerosine — unspecified	64742-47-8

International Regulations

Montreal Protocol : 1,1-difluoroethane

The ingredients of this product are reported in the following inventories:

TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AIIC	:	On the inventory, or in compliance with the inventory
DSL	:	All components of this product are on the Canadian DSL
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
TECI	:	Not in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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:

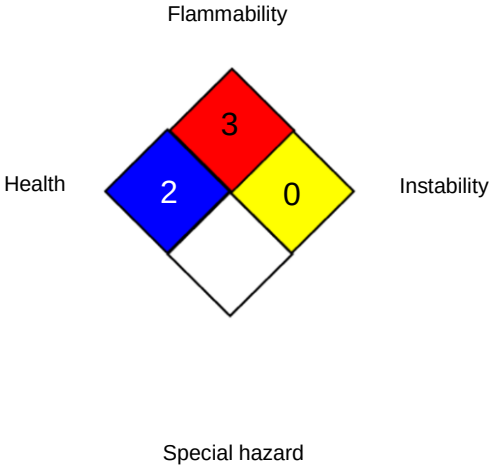
CAUTION

Contains petroleum distillates., Harmful if swallowed, Harmful if inhaled, Harmful if absorbed through the skin., Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals., Causes eye irritation

SECTION 16. OTHER INFORMATION

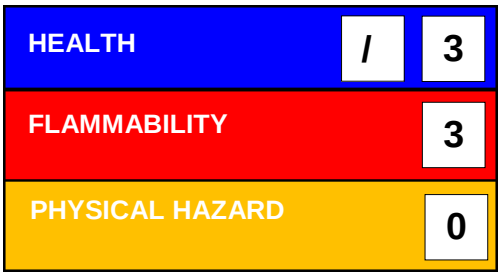
Further information

NFPA 704:



0 No health threat, **1** Slightly Hazardous, **2** Hazardous, **3** Extreme danger, **4** Deadly

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport

Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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Prepared by:

FMC Corporation

End of Safety Data Sheet