SAFETY DATA SHEET

DOWPER™ Solvent

Version	Revision Date:	SDS Number:	Date of last issue: 05-10-2016
14.0	04-15-2021	101198869	Date of first issue: 04-15-2021

BLUE CUBE OPERATIONS LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

SECTION 1. IDENTIFICATION

Product name	:	DOWPER™ Solvent
Product code	:	000000001000002584

Manufacturer or supplier's details

Company name of supplier	:	BLUE CUBE OPERATIONS LLC
Address	:	190 CARONDELET PLAZA, SUITE 1530 CLAYTON MO 63105-3467
Telephone	:	(844) 238-3445
E-mail address	:	INFO@OLIN.COM
Emergency telephone	:	+1 800 424 9300
Local Emergency Contact	:	1-800-424-9300
Identified uses	:	Industrial solvent. As your supplier, we do NOT approve this product for direct sales to the general public. As your supplier, we do NOT recommend the use of this product in applications where: - soil or ground water contamination is likely (direct applications to the ground, sink drains, sewers, or septic tanks). - where over exposure is likely (small rooms or confined space, or where there would be inadequate ventilation). - where skin contact is likely (adhesive tape removal from skin or as hand cleaner to remove oils and greases). - where there is direct food contact. - where vapor concentrations would be in the flammable range. - where disposal of waste would pose an environmental or health risk. - where chemical reactivity poses a danger (contact with strong alkali, or in areas where welding is done).

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Skin irritation	:	Category 2
Skin sensitization	:	Sub-category 1B

Carcinogenicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)

GHS label elements

Hazard pictograms :

Signal Word	:	Warning
Hazard Statements	:	Causes skin irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness. Suspected of causing cancer.

Precautionary Statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : tetrachloroethylene

CAS-No. : 127-18-4

Components

Chemical name	CAS-No.	Concentration (% w/w)
Ethene, tetrachloro-	127-18-4	> 99.9

SECTION 4. FIRST AID MEASURES

If inhaled : Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

In case of skin contact : Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse.
Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.
Suitable emergency safety shower facility should be available in work area.

In case of eye contact : Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

If swallowed : If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed : Aside from the information found under Description of first aid measures(above)any additional important symptoms and effects are described in Section 11: Toxicology Information.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Maintain adequate ventilation and oxygenation of the patient.
If burn is present, treat as any thermal burn, after decontamination.
Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary.

Alcohol consumed before or after exposure may increase adverse effects.
No specific antidote.
Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
Skin contact may aggravate preexisting dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.
Hazardous combustion products	:	Fire conditions may cause this product to decompose. Refer to section 10 - Thermal Decomposition.
Further information	:	Keep people away. Isolate fire and deny unnecessary entry. Do not use direct water stream. May spread fire. This material does not burn. Fight fire for other material that is burning. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the 'Accidental Release Measures' and the 'Ecological Information' sections of this (M)SDS.
Special protective equipment for fire-fighters	:	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep personnel out of low areas. Keep upwind of spill. Ventilate area of leak or spill. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Environmental precautions	:	Material will sink in water. Prevent from entering into soil, ditches, sewers, waterways

and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up : Small spills:
Absorb with materials such as:
Bentonite.
Sawdust.
Clay.
Large spills:
Contain spilled material if possible.
Recover spilled material if possible.
Collect in suitable and properly labeled containers.
Suitable containers include:
Metal drums.
See Section 13, Disposal Considerations, for additional information.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not swallow.
Avoid breathing vapor.
Avoid contact with skin and clothing.
Wash thoroughly after handling.
Keep container closed.
Use with adequate ventilation.
Do not enter confined spaces unless adequately ventilated.
See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Conditions for safe storage : Store under cover in a dry, clean, cool, well ventilated place away from sunlight.
Do not handle or store near an open flame, heat, or sources of ignition.
Keep container tightly closed when not in use.
Do not store in:
Aluminum.
Aluminum alloys.
Additional storage and handling information on this product may be obtained by calling your sales or customer service contact.
Ask for a product brochure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethene, tetrachloro-	127-18-4	TWA	10 ppm	OLIN OEL
		TWA	25 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm	OSHA Z-2
		CEIL	200 ppm	OSHA Z-2

		Peak	300 ppm (5 mins. in any 3 hrs.)	OSHA Z-2
		TWA	25 ppm 170 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Ethene, tetrachloro-	127-18-4	Tetrachloroethylene	In end-exhaled air	Prior to shift (16 hours after exposure ceases)	3 parts per million	ACGIH BEI
		Tetrachloroethylene	In blood	Prior to shift (16 hours after exposure ceases)	0.5 mg/l	ACGIH BEI

Engineering measures : Use engineering controls to maintain airborne level below exposure limit requirements or guidelines.
If there are no applicable exposure limit requirements or guidelines, use only in enclosed systems or with local exhaust ventilation.
Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point.
Lethal concentrations may exist in areas with poor ventilation.

Personal protective equipment

Respiratory protection : Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.
If there are no applicable exposure limit requirements or guidelines, use an approved respirator.
Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material.
For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.
In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

Filter type : The following should be effective types of air-purifying respirators: Organic vapor cartridge.

Hand protection

Remarks : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Ethyl vinyl alcohol laminate ('EVAL'). Polyvinyl alcohol ('PVA'). Viton. Examples

of acceptable glove barrier materials include: Butyl rubber. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye protection : Use safety glasses (with side shields).

Skin and body protection : Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Liquid.
Color	:	Colorless
Odor	:	Characteristic
Odor Threshold	:	No test data available
pH	:	Not applicable
Melting point/range	:	-8 °F / -22 °C Method: Literature
Freezing point		-8 °F / -22 °C Method: Literature
Boiling point/boiling range	:	250.5 °F / 121.4 °C Method: Literature
Flash point	:	Method: ASTM D 56, closed cup (none)
Evaporation rate	:	No test data available
Flammability (liquids)	:	Not expected to be a static-accumulating flammable liquid.
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapor pressure	:	13 mmHg (68 °F / 20 °C)

		Method: Literature
Relative vapor density	:	5.76 Method: Literature
Relative density	:	1.619 (77 °F / 25 °C) Method: Literature
Solubility(ies) Water solubility	:	0.15 g/l (77 °F / 25 °C) Method: Literature
Partition coefficient: n-octanol/water	:	log Pow: 2.53 Method: Measured
Autoignition temperature	:	Not combustible.
Decomposition temperature	:	No test data available
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	0.52 mm2/s (77 °F / 25 °C) Method: Estimated.
Explosive properties	:	No
Oxidizing properties	:	No
Molecular weight	:	165.8 g/mol Method: Literature

Note: These are the Reference Points for these Physical Properties listed above, unless otherwise noted in their respective Physical Property value information: Boiling Point at 760 mmHg; Evaporation Rate Butyl Acetate = 1; Relative Vapor Density Air = 1; and Relative Density Water = 1.
NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under recommended storage conditions. See Storage, Section 7.
Possibility of hazardous reactions	:	Polymerization will not occur.
Conditions to avoid	:	Exposure to elevated temperatures can cause product to decompose. Avoid open flames, welding arcs, or other high temperature sources which induce thermal decomposition. Avoid direct sunlight or ultraviolet sources.

Incompatible materials	:	Avoid contact with: Strong bases. Strong oxidizers. Avoid contact with metals such as: Zinc powders. Zinc. Aluminum powders. Magnesium powders. Potassium. Sodium. Avoid unintended contact with: Amines.
Hazardous decomposition products	:	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Decomposition products can include trace amounts of: Chlorine. Phosgene.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

Ethene, tetrachloro-:

Acute oral toxicity	:	LD50 (Rat): > 3,000 mg/kg Method: OECD 401 or equivalent
Acute inhalation toxicity	:	Remarks: In confined or poorly ventilated areas, vapor can readily accumulate and can cause unconsciousness and death. Dizziness may occur at 200 ppm perchloroethylene; progressively higher levels may also cause nasal irritation, nausea, incoordination, drunkenness, and over 1000 ppm, unconsciousness and death. A single brief (minutes)inhalation exposure to levels above 6000 ppm perchloroethylene may be immediately fatal. Based on structural analogy and/or equivocal data in animals, excessive exposure may potentially increase sensitivity to epinephrine and increase myocardial irritability (irregular heartbeats). Alcohol consumed before or after exposure may increase adverse effects. LC50 (Rat): > 20 mg/l Exposure time: 4 h Test atmosphere: vapor Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit): > 10,000 mg/kg

Method: Other guidelines

Skin corrosion/irritation

Components:

Ethene, tetrachloro-:

Result	:	Skin irritation
Remarks	:	Brief contact may cause moderate skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. Prolonged or repeated exposure may cause defatting of the skin leading to drying or flaking of skin.

Serious eye damage/eye irritation

Components:

Ethene, tetrachloro-:

Remarks	:	May cause pain disproportionate to the level of irritation to eye tissues. May cause slight temporary eye irritation. Low vapor concentrations may cause eye irritation; these concentrations are easily attainable at room temperature.
Result	:	No eye irritation

Respiratory or skin sensitization

Product:

Assessment	:	The product is a skin sensitizer, sub-category 1B.
Remarks	:	Has demonstrated the potential for contact allergy in mice.

Components:

Ethene, tetrachloro-:

Assessment	:	The product is a skin sensitizer, sub-category 1B.
Remarks	:	Has demonstrated the potential for contact allergy in mice.
Remarks	:	For respiratory sensitization: No relevant data found.

Germ cell mutagenicity

Components:

Ethene, tetrachloro-:

Genotoxicity in vitro	:	Remarks: In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

Carcinogenicity

Components:

Ethene, tetrachloro-:

Remarks : Perchloroethylene has been shown to increase the incidence of tumors in certain strains of mice and rats. Other long-term inhalation studies in rats failed to show tumorigenic response. Human data are limited and have not established an association between perchloroethylene exposure and cancer. Perchloroethylene is not believed to pose a measurable carcinogenic risk to man when handled as recommended.

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

IARC Group 2A: Probably carcinogenic to humans
Ethene, tetrachloro- 127-18-4

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 Reasonably anticipated to be a human carcinogen
Ethene, tetrachloro- 127-18-4

Reproductive toxicity

Components:

Ethene, tetrachloro-:

Effects on fertility : Remarks: In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
In animal studies, did not interfere with fertility.

Effects on fetal development : Remarks: Has been toxic to the fetus in laboratory animals at doses toxic to the mother.
Did not cause birth defects in laboratory animals.

STOT-single exposure

Components:

Ethene, tetrachloro-:

Routes of exposure : Inhalation
Target Organs : Central nervous system
Assessment : May cause drowsiness or dizziness.

Repeated dose toxicity

Components:

Ethene, tetrachloro-:

Remarks : In humans, effects have been reported on the following

organs:
Central nervous system.
In animals, effects have been reported on the following organs:
Central nervous system.
Kidney.
Liver.
Observations in animals include:
Anesthetic or narcotic effects.

Aspiration toxicity

Components:

Ethene, tetrachloro-:

Based on physical properties, not likely to be an aspiration hazard.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to algae/aquatic plants : EC50 (Green algae (Chlamydomonas reinhardtii).): 3.64 mg/l
End point: Growth rate inhibition
Exposure time: 72 h
Method: OECD Test Guideline 201 or Equivalent

EC50 (Green algae (Chlamydomonas reinhardtii).): 1.77 mg/l
End point: Growth rate inhibition
Exposure time: 72 h

Components:

Ethene, tetrachloro-:

Toxicity to fish : Remarks: Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50 (Oncorhynchus mykiss (rainbow trout)): 5 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203 or Equivalent

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 8.5 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae/aquatic plants : EC50 (Green algae (Chlamydomonas reinhardtii).): 3.64 mg/l
End point: Growth rate inhibition
Exposure time: 72 h
Method: OECD Test Guideline 201 or Equivalent

EC50 (Green algae (Chlamydomonas reinhardtii).): 1.77 mg/l
End point: Growth rate inhibition
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.51 mg/l
End point: number of offspring
Exposure time: 28 d
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 211 or Equivalent
GLP: No

Toxicity to microorganisms : IC50 (Bacteria): 112 mg/l
Exposure time: 24 h

Toxicity to soil dwelling organisms : EC50 (Eisenia fetida (earthworms)): 113.4 mg/kg
Exposure time: 24 h

Persistence and degradability

Components:

Ethene, tetrachloro-:

Biodegradability : Result: Not biodegradable.
Remarks: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.
Biodegradation may occur under anaerobic conditions (in the absence of oxygen).
Biodegradation rate may increase in soil and/or water with acclimation.

ThOD : 0.19 mg/mg

Photodegradation : Sensitizer: OH radicals
Rate constant: 8.05E-13 cm3/s
Method: Estimated.

Bioaccumulative potential

Components:

Ethene, tetrachloro-:

Partition coefficient: n-octanol/water : log Pow: 2.53
Method: Measured
Remarks: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Mobility in soil

Components:

Ethene, tetrachloro-:

Distribution among environmental compartments : Koc: 141
Method: Estimated.
Remarks: Potential for mobility in soil is high (Koc between 50 and 150).

Other adverse effects

Components:

Ethene, tetrachloro-:

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Global warming potential

The Fifth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC)

Components:

Chloroform:

20-year global warming potential: 60
100-year global warming potential: 16
Atmospheric lifetime: 0.4 yr
Radiative efficiency: 0.08 Wm2ppb
Further information: Chlorocarbons and Hydrochlorocarbons

Carbon tetrachloride:

20-year global warming potential: 3,480
100-year global warming potential: 1,730
Atmospheric lifetime: 26 yr
Radiative efficiency: 0.17 Wm2ppb
Further information: Chlorocarbons and Hydrochlorocarbons

Dichloromethane (methylene chloride):

20-year global warming potential: 33
100-year global warming potential: 9
Atmospheric lifetime: 0.4 yr
Radiative efficiency: 0.03 Wm2ppb
Further information: Chlorocarbons and Hydrochlorocarbons, RE is unchanged since AR4 except the absolute forcing is increased by a factor of 1.04 to account for the change in the recommended RE of CFC-11.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL.

THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information.
All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.
Regulations may vary in different locations.
Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.
DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.
FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 1897
Proper shipping name	:	TETRACHLOROETHYLENE
Class	:	6.1
Packing group	:	III
Labels	:	6.1

IATA-DGR

UN/ID No.	:	UN 1897
Proper shipping name	:	Tetrachloroethylene
Class	:	6.1
Packing group	:	III
Labels	:	Toxic
Packing instruction (cargo aircraft)	:	663
Packing instruction (passenger aircraft)	:	655

IMDG-Code

UN number	:	UN 1897
Proper shipping name	:	TETRACHLOROETHYLENE (Tetrachloroethylene)
Class	:	6.1
Packing group	:	III
Labels	:	6.1
EmS Code	:	F-A, S-A
Marine pollutant	:	yes
Remarks	:	Stowage category ALiquid halogenated hydrocarbons

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

UN/ID/NA number	:	UN 1897
Proper shipping name	:	Tetrachloroethylene

Class	:	6.1
Packing group	:	III
Labels	:	TOXIC
ERG Code	:	160
Marine pollutant	:	yes(Tetrachloroethylene)

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

EPCRA - Emergency Planning and Community Right-to-Know

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 : Skin corrosion or irritation
Respiratory or skin sensitization
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)

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

Ethene, tetrachloro-	127-18-4	> 99.9

US State Regulations

Pennsylvania Right To Know

Ethene, tetrachloro-	127-18-4

California Prop. 65

WARNING: This product can expose you to chemicals including Ethene, tetrachloro-, Chloroform, Carbon tetrachloride, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Dichloromethane (methylene chloride), 79-01-6, 1,1,1,2,2,2-Hexachloroethane, which is/are known to the State of California to cause cancer, and
Chloroform, 79-01-6, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

International Regulations

Montreal Protocol (Ozone Depleting Substances)	:	Not applicable
Rotterdam Convention (Prior Informed Consent)	:	Not applicable
Stockholm Convention (Persistent Organic Pollutants)	:	Not applicable

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

CH INV : All intentional components are listed on the inventory, are exempt, or are supplier certified.

DSL	:	All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.
AICS	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
NZIoC	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
ENCS	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
ISHL	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
KECI	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
PICCS	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
IECSC	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
TCSI	:	All intentional components are listed on the inventory, are exempt, or are supplier certified.
TSCA	:	All substances listed as active on the TSCA Inventory or are not required to be listed.

TSCA list

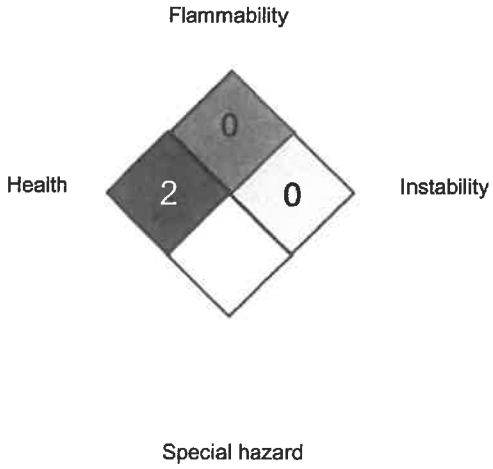
No substances are subject to a Significant New Use Rule.

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

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-2	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-2 / TWA	:	8-hour time weighted average
OSHA Z-2 / CEIL	:	Acceptable ceiling concentration
OSHA Z-2 / Peak	:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift

AICS - Australian Inventory of Chemical Substances; 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; 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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