SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: 499320
Product Name: ZENACOOL
Revision Date: Apr 19, 2018 **Supersedes Date:** Apr 26, 2018
Version: 1.0
Manufacturer's Name: Zenex International
Address: 1 Zenex Circle Cleveland, OH, US, 44146
Emergency Phone: 1-800-535-5053
Information Phone Number: (440)-232-4155
Fax:
Product/Recommended Uses: ZENACOOL

SECTION 2) HAZARDS IDENTIFICATION

Classification

Carcinogenicity - Category 2

Eye Irritation - Category 2

Gases Under Pressure Dissolved Gas

Skin Irritation - Category 2

Skin Sensitizer - Category 1B

Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3

Pictograms

Signal Word

Warning

Hazardous Statements - Physical

H280 - Contains gas under pressure; may explode if heated

Hazardous Statements - Health

H351 - Suspected of causing cancer.

H319 - Causes serious eye irritation

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H336 - May cause drowsiness or dizziness

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves/eye protection.

P264 - Wash hands thoroughly after handling.

P261 - Avoid breathing vapors/spray.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P271 - Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

P308 + P313 - IF exposed or concerned: Get medical 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 attention.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P362 + P364 - Take off contaminated clothing. And wash it before reuse.

P333 + P313 - If skin irritation or a rash occurs: Get medical attention.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements - Storage

P405 - Store locked up.

P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

Precautionary Statements - Disposal

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 3) COMPOSITION, INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000127-18-4	TETRACHLOROETHYLENE	60% - 100%
0000124-38-9	CO2	2% - 3%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention.

Eye Contact

Wash immediately with large volumes of fresh water for at least 15 minutes. Get medical attention.

Skin Contact

Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

Ingestion

Ingestion is not a likely route of exposure. Get medical attention if you feel unwell.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, Alcohol foam, CO2, Dry Chemical, Water fog.

Unsuitable Extinguishing Media

Water may be ineffective but can be used to cool containers exposed to heat or flame.

Specific Hazards in Case of Fire

Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will not support combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention. Hazardous decomposition products include carbon dioxide, carbon monoxide, and other toxic fumes.

Fire-Fighting Procedures

Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.

Special Protective Actions

Wear goggles and use a self-contained breathing apparatus. If water is used, fog nozzles are preferred.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Avoid breathing vapors. Ventilate area. Remove all sources of ignition.

Recommended Equipment

Clean up with an absorbent material and place in closed containers for disposal.

Personal Precautions

Avoid breathing vapors. Ventilate area. Wear safety glasses and gloves.

Environmental Precautions

Stop spill/release if it can be done safely.

SECTION 7) HANDLING AND STORAGE

General

Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally.

Ventilation Requirements

Use in a well ventilated place.

Storage Room Requirements

Store and use in a cool, dry, well-ventilated area. Do not store above 120°F. See product label for additional information.

SECTION 8) EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection

Safety glasses with side shields should be used if indicated. Eye wash and safety showers in the workplace are recommended.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory Protection

In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	NIOSH Carcinogen
CO2	5000	9000			1			5000	9000	30000	54000	
TETRACHLOROETHYLENE	100 (a)/ 200 ceiling		300ppm /5 mins. in any 3 hrs. (a)		1,2			b				1

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)
CO2	5000	9000	30000	54000
TETRACHLOROETHYLENE	25	170	100	685

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	12.68510 lb/gal
Density VOC	0.00000 lb/gal
% VOC	0.00000%

Appearance	N.A.
Odor Threshold	N.A.
Odor Description	N.A.
pH	N.A.
Water Solubility	N.A.
Flammability	Will not burn
Flash Point Symbol	N.A.
Flash Point	N.A.
Viscosity	N.A.
Lower Explosion Level	N.A.
Upper Explosion Level	N.A.
Vapor Density	Slower than ether
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	N.A.
High Boiling Point	252 °F

Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	Slower than ether

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage conditions.

Conditions to Avoid

High temperatures.

Incompatible Materials

None known.

Hazardous Reactions/Polymerization

None known.

Hazardous Decomposition Products

Hazardous decomposition products may include carbon dioxide, carbon monoxide, and other toxic fumes.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes skin irritation

Classification of the substance or mixture

There is no toxicological data available for this product.

Serious Eye Damage/Irritation

Causes serious eye irritation

Carcinogenicity

Suspected of causing cancer.

Germ Cell Mutagenicity

No data available

Reproductive Toxicity

No data available

Respiratory/Skin Sensitization

May cause an allergic skin reaction

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

Specific Target Organ Toxicity - Repeated Exposure

No data available

Aspiration Hazard

No data available

Acute Toxicity

No data available

LC5O (rat): Approximately 3786 ppm (4-hour exposure) (22); approximately 4000 ppm (4-hour exposure) (23)
LC50 (mouse): 5200 ppm (4-hour exposure) (24)

LD5O (oral, rat): Approximately 2600 mg/kg (cited as 1.6 mL/kg) (20)
LD50 (oral, male rat): 3835 mg/kg (25)
LD50 (oral, female rat): 3005 mg/kg (25)
LD50 (dermal, rabbit): Greater than 3245 mg/kg (0/5 animals died) (2)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

No data available

Classification of the substance or mixture

There is no ecological data available for this product.

Persistence and Degradability

No data available.

Bio-Accumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

Water Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information

UN number: UN1950

Proper shipping name: Aerosols, non-flammable, (each not exceeding 1 L capacity) (LTD QTY)

Hazard class: 2.2

IMDG Information

UN number: UN1950

Proper shipping name: Aerosols, non-flammable, (each not exceeding 1 L capacity) (LTD QTY)

Hazard class: 2.2

IATA Information

UN number: UN1950

Hazard class: 2.2

Proper shipping name: Aerosols, non-flammable, (each not exceeding 1 L capacity) (LTD QTY)

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000127-18-4	TETRACHLOROETHYLENE	60% - 100%	SARA313, CERCLA,HAPS,SARA312,VOC_exempt,TSCA,RCRA,ACGIH,CA_Prop65 - California Proposition 65,OSHA
0000124-38-9	CO2	2% - 3%	SARA312,TSCA,ACGIH,OSHA

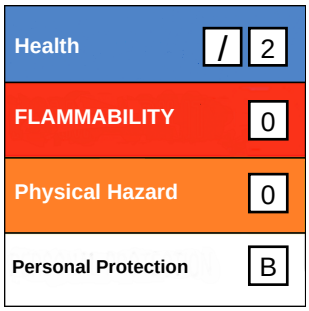
SECTION 16) OTHER INFORMATION

Glossary

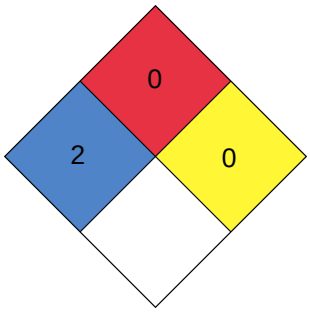
* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS



NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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