



KRETUS®

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: KRETUS® Solvent Cleaner

Recommended Use: For residential and industrial use

Manufacturer: Kretus, 1055 W. Struck Ave., Orange, CA 92867

Telephone: (714) 694-2061

24 Hour Emergency Telephone Number: (800) 255-3924 (CHEMTEL)

Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

Comments: To the best of our knowledge, this Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200.

SECTION 2: HAZARD IDENTIFICATION

Flammable Liquids: Category 1

Specific Target Organ – Single Exposure (Narcotic Effects): Category 3

Skin Corrosion/Irritation: Category 3

Eye Irritation: Category 2A

Carcinogenicity: Category 1B

Aspiration Hazard: Category 2

Danger

Highly flammable liquid and vapor. May cause an allergic skin reaction or respiratory irritation. Causes serious eye irritation. Causes damage to organs through prolonged or repeated exposure if swallowed.



Keep container tightly closed and away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment and only non-sparking tools. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling.

In case of fire, use dry chemical to extinguish.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

Store container locked up and tightly closed in a cool, well-ventilated place. Dispose of contents/container according to local, state, and federal regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Chemical Name	CAS No.	Concentration (% by Weight)
Acetone	000067-64-1	5-60%
Parachlorobenzotrifluoride	000098-56-6	5-60%
Proprietary		20-30%

SECTION 4: FIRST-AID MEASURES

Contact with Eyes

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Contact with Skin

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

If ingested, do not induce vomiting. Parachlorobenzotrifluoride is not soluble. Do not give fluids. If spontaneous vomiting is inevitable, prevent aspiration by keeping the victim's head below the knees. Get medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Alcohol-Resistant Foam. Carbon Dioxide (CO₂).

Special Risks—Unusual Fire and Explosion Hazards

Highly flammable. Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

Hazardous Combustion Products

May include carbon monoxide, carbon dioxide (CO₂).

Special Protective Equipment for Fire-Fighting

Appropriate breathing apparatus may be required. Cool endangered containers with water in case of fire. Do not allow quenching water into sewers or waterways. Wear pressure-demand self-contained breathing apparatus (MSHA/NIOSH-approved or equivalent) and full protective gear.

Flash Point: -4°F

Flash Point Method: Closed Cup
 Upper Flame Limit (volume % in air): 13
 Lower Flame Limit (volume % in air): 2.5

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental Precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution (sewers, drains, waterways or soil).

Methods and Materials for Containment and Clean-up:

Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe-Handling

Put on appropriate personal protective equipment, PPE (see Section 8). Eating and drinking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated PPE or clothing, wash hands and face before eating and drinking. Use only in area provided with appropriate exhaust ventilation. Empty containers retain product residue and can be hazardous. Do not get in eyes, skin or clothing. Do not ingest. Avoid release to the environment.

Conditions for Safe Storage

Store between 4 to 40°C (40 to 104°F) in accordance with local regulations away from sources of heat, ignition, and direct sunlight. Store in original container. Keep in a dry, well-ventilated area, and away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environmental contamination.

Incompatible Materials or Ignition Sources

Hazardous polymerization does not occur. Avoid oxidizing agents. Avoid heat, flames and sparks. Hazardous decomposition products include chlorine and fluorine containing gases, carbon dioxide, carbon monoxide and other undetermined compounds.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone	TWA: 2500 ppm STEL: 500ppm	(Vacated) TWA: 750 ppm (Vacated) TWA: 1800 mg/m ³ (Vacated) STEL: 1000 ppm	IDLH: 2500ppm TWA: 250 ppm TWA: 590 mg/m ³

		(Vacated) STEL: 2400 mg/m ³ TWA: 1000ppm TWA: 2400 mg/m ³	
Parachlorobenzotrifluoride	TWA: 20 ppm	TWA: 20 ppm	TWA: 20 ppm

Engineering measures: Work in well ventilated area. Provide natural or explosion-proof fan to ensure adequate ventilation, especially in confined area. Avoid contact with skin, eyes, and clothing.

Environmental exposure controls: Construct a dike to prevent spreading. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Respiratory: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eyes: Splash proof safety glasses.

Skin: Rubber or plastic apron. Rubber or plastic gloves. Long sleeved clothing or wear protective sleeves. Remove and wash contaminated clothing before re-use.

Other protective equipment information: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Neoprene gloves. PVC disposable gloves. Nitrile rubber. Butyl-rubber. Impervious gloves. (The breakthrough time of the selected glove(s) must be greater than the intended use period.)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid; colorless
Odor	No Data Available
Odor Threshold	1 ppm
pH	8/9
Melting/Freezing Point	-159°F
Initial Boiling Point and Boiling Range	132°F
Flash Point	-4°F
Method	closed cup
Evaporation Rate	5.6
Vapor Pressure	247nbar@20°C
Vapor Density	2.0
Relative Density	0.79

Solubility(ies)	soluble in water
WPG	8.83 – 9.1
VOC	0
Flammability	No Data Available
Partition Coefficient: n-octanol/water	No Data Available
Decomposition Temperature	No Data Available
Auto-Ignition Temperature	No Data Available
Viscosity	No Data Available

SECTION 10: STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions. Hazardous reactions will not occur.

Conditions to avoid: Flames, Sparks, Heat.

Materials to avoid: Oxidizing agents, Aldehydes, Amines, Strong alkaline and strong acid materials in order to avoid exothermic reactions. Hazardous decomposition products: Carbon monoxide (CO), Carbon dioxide (CO₂).

Hazardous polymerization: Under normal conditions hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetone	5800 mg/kg (rat)	>15800mg/kg (rabbit) >7400 mg/kg (rat)	76 mg/L, 4hr, (rat)
Parachlorobenzotrifluoride	>6.8 g/kg (rat)	>2.7 g/kg (rabbit)	>4479 ppm (rat)

Toxicologically Synergistic

Carbon tetrachloride; Chloroform; Trichloroethylene; Bromodichloromethane; Dibromochloromethane; N-nitrosodimethylamine; 1,1,2-Trichloroethane; Styrene; Acetonitrile, 2,5-Hexanedione; Ethanol; 1,2-Dichlorobenzene

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

Irritation Irritating to eyes and skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No.	IARC	NTP	ACGIH	OSHA
Acetone	000067-64-1	Not listed	Not listed	Not listed	Not listed
Parachlorobenzotrifluoride	000098-56-6	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Central nervous system (CNS)

STOT - repeated exposure Kidney Liver spleen Blood

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: May cause pulmonary edema: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

SECTION 12: ECOLOGICAL INFORMATION

Prevent from entering sewer or waterway. This material is not expected to be harmful to aquatic life. Component Analysis - Ecotoxicity - Aquatic Toxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Acetone	NOEC = 430 mg/l (algae; 96 h)	Oncorhynchus mykiss: LC50 = 5540 mg/l 96h Alburnus: LC50 = 11000 mg/l 96h Leuciscus idus: LC50 = 11300 mg/L/48h Salmo gairdneri: LC50 = 6100 mg/L/24h	EC50 = 14500 mg/L/15 min	EC50 = 8800 mg/L/48h EC50 = 12700 mg/L/48h EC50 = 12600 mg/L/48h
Parachlorobenzotrifluoride	IC50 (72 hr.) (Green & Blue-green algae) 500 mg/L	LC50 (96 hr.) (Rainbow trout) 13.5 mg/L LC50 (96 hr.) (Bluegill sunfish) 12.0 mg/L MATC (31 day) (Fathead minnow) >0.54		LC50 (48 hr.) (Water flea) 12.4 mg/L MATC (21 day) (Water flea) >0.03 < 0.05 mg/L*

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its volatility.

Component	LOG KOW
Acetone	-0.24
Parachlorobenzotrifluoride	3.7

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of waste in accordance with federal, state, and local regulations.

The generation of waste should be avoided or minimized wherever possible. Empty containers should be taken to an approved waste handling site for recycling or disposal. Incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

SECTION 14: TRANSPORT INFORMATION

DANGER



	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Packing Group
DOT	UN1090	Acetone	3	II
IMO/IMDG	UN1090	Acetone	3	II
IATA/CAO	UN1090	Acetone	3	II

The transportation information listed above is suitable for all modes of transportation. TDG, IMO/IMDG, ICAO/IATA, 49 CFR

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

OSHA: This product is considered hazardous.

CERCLA SARA Hazard Category:

Section 311 AND 312: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: Immediate. Fire. Acute Health Hazard. Chronic Health Hazard.

Section 313: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Component	CAS No.
Acetone	000067-64-1
Parachlorobenzotrifluoride	000098-56-6

U.S. State Regulations

California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)



WARNING: This product can expose you to parachlorobenzotrifluoride (PCBTF), which is known to the State of California to cause cancer.

WHMIS Classification

B2- Flammable Liquid

D2B- Toxic Material

This product has been classified in accordance with the hazard criteria of the Controlled Products.

Regulations and the SDS contain all the information required by the Controlled Products Regulations.

SECTION 16: OTHER INFORMATION

	NFPA	HMIS
Health	2	2
Flammability	3	3
Reactivity	0	0

Personal Protection: Safety goggles, neoprene rubber gloves, vapor respirator

Prepared by Kretus, Inc.

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Revision Note Reformatting

Disclaimer

The information and recommendations presented herein are accurate to the best of our knowledge. User must conduct their own tests to determine the suitability of these products for their particular purposes and usage. Because of numerous factors affecting results, KRETUS® and its affiliation makes no warranty of any kind, express or implied, including those of merchantability and fitness for purpose, other than material conforms to our applicable current specifications. KRETUS® assumes no legal responsibility for use or reliance on the information contained in this safety data sheet.