Chlorinated Paraffin

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION :

Supplier Name : KLJ Organic Limited
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Commercial Product Name : Chlorinated Paraffin

Synonyms : Chloroalkenes; Medium Chain Chlorinated paraffin.

Use of Product : As a plasticizer ; fire retardant additive ; In PVC compounding. Lubricant additive.

2. COMPOSITION / INFORMATION ON INGRADIENTS :

Chemical Characterization	Chlorinated n-paraffin
CAS Number	63449-39-8
Empirical Formula	$C_nH_{2n+2-y}Cl_{y\ (n=14\ to\ 17)}$ % Cl = 40% to 68%
Molecule weight	Variable acc. to the Chlorine content and the length of the chain.
Structural Formula	Mixture of variously Chlorinated N-Paraffin
ACGIH TLV	Not established

3. HAZARD IDENTIFICATION :

3.1 Emergency Overview

Clear colorless to pale yellow viscous liquid with slight to not distinctive odor. Low acute toxicity under normal condition of handling & use. Slight irritant to eye. Avoid contact with eye and repeat or proloned contact with skin. Avoid contact with strong oxidizer and reducers.

HMIS Rating :	Health	Flammability	Reactivity	PPE
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3.2 Potential Health effects :

Eye : May cause slight eye irritant.
Skin : Repeat and prolonged contact may cause skin irritation.
Ingestion : No hazardous in normal industrial use.
Inhalation : Unlikely to be hazardous by inhalation.
Carcinogenicity : See regulatory information. (Sec-15)

4. FIRST AID MEASURES

Eyes	Immediately wash with large quantities of water for at least 15 minutes. Seek medical assistance if effect persists.
Skin Contact	Immediately wash the affected area with copious quantities of soap and water for at least 15 minutes. Seek medical assistance if irritation persists.
Ingestion	Give water to drink and induce vomiting. Use fingers in the throat. Seek immediate medical assistance.
Inhalation	Remove victim from exposure-avoid becoming a casually. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. seek medical assistance if effect persists.

5. FIRE FIGHTING MEASURES

Thermal decomposition	Non flammable may decompose if heated above 200 deg C with liberation of hydrogen chloride.
Flash Point	> 200^{o}C
Extinguishing Media	Dry Chemical, Foam or Water Fog
Special fire fighting Protection	Protect decomposition products. Wear NIOSH/MSHA approved SCBA and full protective equipment.
Unusual fire and exposition hazards	Heating of non-vented container may cause exposition. Keep surrounding containers cool with water spray. Water or foam may cause frothing.

6. ACCIDENTAL RELEASE MEASURES

Steps if material released / Material spills : Wear protective equipment, stop leak at source dyke area. Prevent material from entering waterway. Use absorbent material, shovel into disposal container or pump material into reclaim container from dyke area.

Waste disposal methods : According to all local, state and federal regulations.
Mopping Mix with a slightly moist absorbent like sand, earth or sawdust. Shovel into waste container. Remove Waste from workplace.

Special precautions : Wear slip resistant footwear. Material is slippery and conducive to falls.

7. HANDLING AND STORAGE

7. 1 Handling

Materials to avoid	Avoid highly reactive elements such as the Alkali and Alkaline Earth metals, which have a strong affinity for Halogens. Avoid strong oxidizing and reducing agents.
Conditions to avoid	Do not store near open flame or heat. Store in well-ventilated area. Use local exhaust if necessary.
Other precautions	Do not wear contaminated clothing.

7.2 Storage

Container Storage	Store in lacquer coated mild steel or high density Polyethylene containers. Avoid mild steel, PVC or low alloy steels.
Tank storage	Store in Polypropylene lined tanks
Other	Keep only in original container at temperatures not exceeding 40 deg C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

ACGIH, OSHA	: Not established
Respiratory Protection	No required under normal conditions. NIOSH/MSHA Approved respirator appropriate for exposure of concern.
Hand Protection	Impervious gloves are recommended.
Eye Protection	Chemical work goggles and full length face shield recommend.
Body Protection	Long sleeve and trousers recommended
Other Protective Equipment	Eye wash, safety shower should be always available and used whenever necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

ITEM	VALUE	UNIT
Appearance	Clear color less to pale yellow viscous liquid	
Odor	Slight to non distinctive.	
Specific Gravity (27^oC)	1.28± 0.02	
Flash point	> 200	^oC
Boiling point (Approx.)	> 200 decompose below boiling point	^oC
Solubility in water (30^oc)	Insoluble	g/1
Solubility in Others	Soluble in most aromatic hydrocarbons, chlorinated solvents, esters and ketones.	g/1
Vapor pressure (40^oC)	Negligible	Mbar
Form	Clear liquid	
Colour	Pale Yellow	
PH value (at 1 g/100 g H_2O) at 30^oC	6.00 to 7.00	
Molecular Weight	405 – 450	

10. STABILITY AND REACTIVITY

Chemical Stability

Chemical Stability	: Stable under normal ambient and anticipated storage and handling conditions
Conditions to Avoid	: Avoid heating to decomposition
Incompatibility	: Strong oxidizing and reducing agents
Hazardous Decomposition Products	: Hydrogen chloride, oxides of carbon
Hazardous Polymerization	: Will not occur

11. TOXICOLOGICAL INFORMATION

Oral LD 50	> 4000 mg/Kg.
Skin	Mild irritant
Eyes	Mild irritant
Ingestion	Unlikely to be hazardous if swallowed.
Long term Exposure	Repeated exposure to high levels may produce liver and kidney damage. Chlorinated paraffins (C14 – C17), gave no effect level in the range of 250 – 300 ppm. Slight effect on the lever were seen at higher doses. Adverse effects(blood disorder) have been seen in new born rats, rarely by dams fad on high doses of the similar chlorinated paraffin.Chlorinated paraffin, as a group of chemicals are not genotoxic. Their lack of genotoxic activity together with the results of other studies leads us to conclude that chlorinated paraffins are unlikely to present a carcinogenic hazard to man under normal conditions of handling and use.

12 ECOLOGICAL INFORMATION :

Environment Fate and distribution :

Liquid with low volatility . The product insoluble in water .The product has low potential for bioaccumulation.

Persistence and degradation :

There is evidence of partially hydrolysis in water. There is evidence of slow degradation in soil & water.

Ecotoxicity :

Unlike to have any ecotoxic or environmentally toxic effect.

Effect on effluent treatment :

Unlikely to have any effect on biological effluent treatment system.

13. DISPOSAL CONSIDERATIONS ;

Do not discharge in to drain or the environment. Dispose to an authorized waste collection point.

Disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

Not regulated

15 REGULATORY INFORMATION

US FEDERAL REGULATIONS

OSHA Classification : This product is not classified as a "Hazardous Chemical" by definition of Hazard Communication Standard (29 CRF 1910.1200)

Carcinogen Status : IARC (international agency for Research on Cancer): Not assign an overall evaluation.

: NTP (National Toxicology Program) overall evaluation is there is limited evidence for the carcinogenicity of chlorinated paraffin (C23, 43 % chlorine) in experimental animals.

TSCA Inventory status : Yes

SARA : Regulations: sections 313 and 40 CFG 372: This product is not subject to reporting requirements.

Hazard categories: SARA SECTIONS 311/312 (40CFR370.21)

ACUTE : N

CHRONIC

REACTIVE : N

SUDDEN RELEASE : N

OSHA PROCESS SAFETY (29CFR1910.119) : N

Ozone Protection and 40 CFR 42: This product does not contain nor is it manufactured with ozone depleting substances.

Canadian Regulations : This product has been classified in accordance with the hazard criteria of the FPR (Controlled Products Regulations) and this MSDS (Material Safety Data sheet) contains all the information required by the CPR.

Controlled Products Regulations (WHMIS) Classification: Not regulated.

CEPA / Canadian Domestic Substances List(DSL): The Substances in this product are on the Canadian Domestic Substances list (CEPA DSL).

Inventory Status : United States, Australia, Canada, China, EU, Japan, Korea, Philippines

16. OTHER INFORMATION :

MSDS Status : Revised , Jan 1st, 2012

The information herein given in good faith, but no warranty, express or implied is made.

Consult : KLJ ORGANIC Ltd. For further information.