

Comsol Kero.

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Comsol Kero.**

Product Code(s)

: Not available.

Recommended use of the chemical and restrictions on use

: Petroleum solvent
Use pattern: Professional Use Only
Restriction on use: None known

Chemical family

: Hydrocarbons.

Name, address, and telephone number
of the supplier:

Comet Chemical Company Ltd.

3463 Thomas Street

Innisfill, ON, Canada
L9S 3W4

Supplier's Telephone #

: 705-436-5580

24 Hr. Emergency Tel #

: TERRRAPURE ENVIRONMENTAL : 800-567-7455

Name, address, and telephone number of
the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear colourless liquid. Petroleum odour.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification :

Flammable Liquids - Category 3

Aspiration Toxicity - Category 1

Label elements

Hazard pictogram(s)



Signal Word

DANGER!

Hazard statement(s)

Flammable liquid and vapour.

May be fatal if swallowed and enters airways.



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Precautionary statement(s)

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash hands thoroughly after handling.
Wear protective gloves and eye/face protection.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Do NOT induce vomiting.
In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam for extinction.

Store in a well-ventilated place. Keep cool.
Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Other hazards which do not result in classification:
May cause skin and respiratory irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Direct eye contact may cause slight or mild, transient irritation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration</u>
Distillates, petroleum, hydrotreated light	Distillates (petroleum), hydrotreated light	64742-47-8	100.00

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Call a physician or poison control centre immediately. Induce vomiting ONLY under the direct supervision of qualified medical personnel or a poison control centre. Never give anything by mouth to an unconscious person.
- Inhalation* : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. Get medical attention if symptoms persist.
- Skin contact* : Immediately flush with plenty of water, while removing contaminated clothing. If irritation persists, seek prompt medical attention. Launder clothing before reuse.
- Eye contact* : Immediately flush eye(s) with plenty of water. After initial flushing, remove any contact lenses if worn, and continue flushing for at least 5 to 10 minutes. If irritation persists, seek prompt medical attention.

Most important symptoms and effects, both acute and delayed

- : Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. Direct skin contact may cause slight or mild, transient irritation. Inhalation of high concentrations may cause dizziness, disorientation, incoordination, narcosis, nausea or narcotic effects. Direct eye contact may cause slight or mild, transient irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically. Aspiration hazard.

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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

Unsuitable extinguishing media

- : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : Burning produces obnoxious and toxic fumes. Flammable liquid and vapour. Vapors are heavier than air and will settle and collect in low areas and pits, displacing breathing air.

Flammability classification (OSHA 29 CFR 1910.106)

- : Flammable Liquids - Category 3

Hazardous combustion products

- : Carbon oxides, formaldehyde and other irritating fumes and smoke.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions

- : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

Methods and material for containment and cleaning up

- : Ventilate the area. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).

Special spill response procedures

- : In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455.
US CERCLA Reportable quantity (RQ): None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Wear protective gloves and eye/face protection. Keep away from heat and open flames. - No smoking. Use with adequate ventilation. Do not breathe mist or vapor. Avoid contact with eyes, skin and clothing. Wash with soap and water after handling. Keep away from acids and other incompatibles. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.

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- Conditions for safe storage** : Store in a cool, dry, well-ventilated area. Store away from areas of excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.
- Incompatible materials** : Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Distillates, petroleum, hydrotreated light	200 mg/m ³ (as total hydrocarbon vapour)	N/Av	N/Av	N/Av

Exposure controls

Ventilation and engineering measures

- : Use sufficient mechanical ventilation to maintain exposures below the TLV. Use local exhaust if mist or spray is generated.

Respiratory protection

- : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

Skin protection

- : Wear appropriate chemical resistant gloves. Advice should be sought from glove suppliers.

Eye / face protection

- : Chemical goggles are recommended when there is a potential for splashing.

Other protective equipment

- : Emergency showers and eyewash facilities should be nearby. Wear a chemically resistant apron and long sleeves when dispensing, to prevent skin contact.

General hygiene considerations

- : Do not breathe mist or vapor. Avoid contact with eyes, skin and clothing. When using do not eat or drink. When using do not smoke. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear, colourless liquid.

Odour : Petroleum odour.

Odour threshold : N/Av

pH : N/Av

Melting/Freezing point : -68.1°C (-90.58°F)

Initial boiling point and boiling range

: 230.4°C (446.72°F)

Flash point : 47°C (116.6°F)

Flashpoint (Method) : closed cup

Evaporation rate (BuAe = 1) : N/Av

Flammability (solid, gas) : Not applicable.

Lower flammable limit (% by vol.)

: 1.1

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Upper flammable limit (% by vol.)

: 6.0

Oxidizing properties : None known.

Explosive properties : Not explosive

Vapour pressure : 0.003 kPa

Vapour density : 5.58

Relative density / Specific gravity

: 0.95

Solubility in water : Insoluble.

Other solubility(ies) : Soluble in most organic solvents.

Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: 5.1-8.8

Auto-ignition temperature : 227°C (440.6°F)

Decomposition temperature : Not available.

Viscosity : Not available.

Volatiles (% by weight) : No information available.

Volatile organic Compounds (VOC's)

: N/Av

Absolute pressure of container

: N/Av

Flame projection length : N/Av

Other physical/chemical comments

: None known or reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not normally reactive.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions

: No dangerous reaction known under conditions of normal use.

Conditions to avoid : Avoid excessive heat, sparks and open flame. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

Incompatible materials : Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES

Routes of entry skin & eye : YES

Routes of entry Ingestion : YES

Routes of exposure skin absorption

: YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

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	: Inhalation of high concentrations may cause dizziness, disorientation, incoordination, narcosis, nausea or narcotic effects. May cause respiratory irritation.
<i>Sign and symptoms ingestion</i>	
	: Ingestion can cause gastrointestinal irritation, nausea, and diarrhea. Aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
<i>Sign and symptoms skin</i>	: Direct skin contact may cause temporary redness.
<i>Sign and symptoms eyes</i>	: Causes serious eye irritation. Symptoms may include redness, pain, tearing and conjunctivitis.
Potential Chronic Health Effects	: Symptoms may include redness, edema, drying defatting and cracking of the skin.
Mutagenicity	: Not expected to be mutagenic.
Carcinogenicity	: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects & Teratogenicity	: Not expected to cause reproductive effects.
Sensitization to material	: Not expected to be a skin or respiratory sensitizer.
Specific target organ effects	: According to the classification criteria of U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015), this product is not expected to cause target organ toxicity through single or repeated exposures.
Medical conditions aggravated by overexposure	: Pre-existing skin, eye or nervous system disorders.
Synergistic materials	: Not available.
Toxicological data	: See below for toxicological data on the substance.

<u>Chemical name</u>	LC₅₀(4hr)	LD₅₀	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Distillates, petroleum, hydrotreated light	>6.03 mg/L (aerosol)	>5000 mg/kg	>2000 mg/kg

Other important toxicological hazards

- : CNS depression may result from extreme exposures.

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity** : See the following tables for individual ingredient ecotoxicity data. Do not allow material to contaminate ground water system.

Ecotoxicity data:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC50 / 96h	NOEC / 21 day	M Factor
Distillates, petroleum, hydrotreated light	64742-47-8	45 mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC50 / 48h	NOEC / 21 day	M Factor
Distillates, petroleum, hydrotreated light	64742-47-8	N/Av	N/Av	N/Av

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<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Distillates, petroleum, hydrotreated light	64742-47-8	N/Av	N/Av	N/Av

Persistence and degradability

: Readily biodegradable.

Bioaccumulation potential

: No data is available on the product itself.

<u>Components</u>	<u>Partition coefficient n-octanol/ater (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Distillates, petroleum, hydrotreated light (CAS 64742-47-8)	5.1-8.8	N/Av

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: No data is available on the product itself.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal

: Handle waste according to recommendations in Section 7.

Methods of Disposal

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN1268	Petroleum distillates, n.o.s	3	III	
49CFR/DOT Additional information	May be shipped as a Limited Quantity when transported in containers no larger than 5 L (1.3 gallons); in packages not exceeding 30 kg (66 pounds) gross mass.				
TDG	UN1268	PETROLEUM DISTILLATES, N.O.S.	3	III	
TDG Additional information	For shipments by ground within Canada, the Limited Quantity / Consumer Commodity Exemption may apply for containers which hold 5 Litres or less or the material. Refer to TDG Section 1.17 for details.				
ICAO/IATA	UN1268	Petroleum distillates, n.o.s.	3	III	



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ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction				
IMDG	UN1268	PETROLEUM DISTILLATES, N.O.S.; or PETROLEUM PRODUCTS, N.O.S.	3	III	
IMDG Additional information	May be shipped as LIMITED QUANTITY in inner containers no larger than 5 Litres. Gross weight per package may not exceed 30 kg.				

Special precautions for user : Keep away from heat, sparks and open flame. - No smoking.

Environmental hazards : See ECOLOGICAL INFORMATION, Section 12.

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

: Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Distillates, petroleum, hydrotreated light	64742-47-8	Yes	N/Ap	N/Av	No	N/Ap

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard ;Immediate (Acute) health hazard . Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Distillates, petroleum, hydrotreated light	64742-47-8	No	N/Ap	No	No	No	No	No	No

Canadian Information:

WHMIS Classification: Refer to Section 2 for a WHMIS Classification for this product.
All ingredients are present on the DSL.

International Information:

Components listed below are present on the following International Inventory list:



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Ingredients	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Distillates, petroleum, hydrotreated light	64742-47-8	265-149-8	Present	Present	(9)-1700	KE-12550	Present	No information available.

SECTION 16. OTHER INFORMATION

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CNS: Central Nervous System
COC: Cleveland Open Cup
CSA: Canadian Standards Association
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/Ap: Not Applicable
N/Av: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

: OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2015.
Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2015 (Chempendium, RTECs, HSDB, INCHEM). 2015
European Chemicals Agency, Classification Legislation, 2015
Material Safety Data Sheet from manufacturer.

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.

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<u>Prepared for:</u> Comet Chemical Company Ltd. 3463 Thomas Street Innisfill, ON L9S 3W4 Information (M-F 8:00-5:00): 705-436-5580 www.cometchemical.com	 COMET COMET CHEMICAL COMPANY LTD.
<u>Prepared by:</u> ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.); (888) 977-4834 (Canada) http://www.thecompliancecenter.com	 icc ComplianceCenter

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