SAFETY DATA SHEET

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SDS No : IsoKote 1000
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IsoKote 1000 (Synlube 1000)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: IsoKote 1000 (Synlube 1000)

MANUFACTURER
Isotec® International, Inc.
201 Longview Street
Canton, GA 30114
Customer Service: 800-234-6300

24 HR. EMERGENCY TELEPHONE NUMBERS
Poison Control Center (Medical) : (877) 800-5553
CHEMTREC (US Transportation) : (800) 424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Inhalation), Category 4
Aspiration Hazard, Category 1
Eye Irritation, Category 2B
Skin Irritation, Category 2
Reproductive Toxicity, Category 2
Target organ toxicity single exposure, Category 2
Target organ toxicity single exposure, Category 3

Physical:

Flammable Liquids, Category 2

GHS LABEL


Flame


Health hazard


Exclamation mark

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H320: Causes eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H371: May cause damage to nervous system.

PRECAUTIONARY STATEMENT(S)

Prevention:

P210: Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
P233: Keep container tightly closed.
P240: Ground or bond container and receiving equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe mist, vapours or spray.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or physician.
P331: Do NOT induce vomiting.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water or shower.
P332+P313: If skin irritation occurs: Get medical attention.
P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or physician if you feel unwell.
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.
P308+P311: IF exposed or concerned: Call a POISON CENTER or physician.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Solvent naphtha (petroleum), light aliphatic	35 - 45	64742-89-8
n-Hexane	35 - 45	110-54-3
Cyclohexane	10 - 20	110-82-7
n-Heptane	<= 10	142-82-5
Non-hazardous silicone release blend	<= 10	

4. FIRST AID MEASURES

EYES: Immediately flush eyes with water for at least 15 minutes. Consult a physician.

SKIN: Immediately flush skin with water. Remove contaminated clothing and shoes. Seek medical attention if irritation persists.

INGESTION: Do not induce vomiting. Give one or two glasses of water to drink. Never give anything by mouth to an unconscious person. If large amounts are swallowed or if symptoms develop, obtain medical attention without delay.

INHALATION: Move person to fresh air. If breathing is difficult, oxygen should be administered by qualified personnel. If not breathing, give artificial respiraiton. Obtain medical attention.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, foam, dry chemical or carbon dioxide. Do not spray water directly into container due to danger of boilover.

EXPLOSION HAZARDS: Containers can build up pressure if exposed to heat or fire.

FIRE FIGHTING PROCEDURES: Do not use direct water stream. Use water spray to cool fire-exposed containers.

FIRE FIGHTING EQUIPMENT: Exposed firefighters must wear NISOH-approved positive pressure self-contained breathing

apparatus with full-face mask and full protective clothing.

SENSITIVE TO STATIC DISCHARGE: Product can accumulate static charges which can cause an electrical spark.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, nitrogen oxides, chlorine and chlorine compounds, smoke and incompletely burned hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Isolate the area and prevent entry of unnecessary and unprotected personnel. Eliminate all ignition sources. Do not walk through or otherwise scatter spilled product. Ventilate the area. Absorb with dry chemical absorbent, earth, sand or any other non-combustible inert material. Do not use combustible materials such as sawdust. Place in a chemical waste container.

LARGE SPILL: Isolate the area and prevent entry of unnecessary and unprotected personnel. Eliminate all ignition sources. Do not walk through or otherwise scatter spilled product. Ventilate the area. Prevent entry into waterways, sewers, basements or confined areas. Create a dike or trench to contain product. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapors but may not prevent ignition in closed spaces. Absorb with dry chemical absorbent, earth, sand or any other non-combustible inert material. Do not use combustible materials such as sawdust. Place in a chemical waste container. Clean up residual material with a 2-5% solution of soda ash.

SPECIAL PROTECTIVE EQUIPMENT: Wear protective equipment listed in Section 8.

7. HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or on clothing. Wash hands before eating, drinking or smoking. Do not breathe vapors or mists. Use only with adequate ventilation. Keep container closed when not in use. Do not reseal if contaminated. Keep away from heat and flame. Vapors can accumulate and travel to ignition sources distant from the handling site and flash-fire can result.

STORAGE: Store in tightly closed containers in a cool, dry and well-ventilated area away from heat or sources of ignition. Keep out of direct sunlight.

STORAGE TEMPERATURE: 4.4°C (40°F) Minimum to 37.8°C (100°F) Maximum

ELECTROSTATIC ACCUMULATION HAZARD: Product can accumulate static charges which can cause an electrical spark.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m³	ppm	mg/m³
Solvent naphtha (petroleum), light aliphatic	TWA	500		300	1370
n-Hexane	TWA	50	180	50 Skin	180 Skin
Cyclohexane	TWA	300	1050	100	350
n-Heptane	TWA	500	2000	400	
	STEL			500	

ENGINEERING CONTROLS: Local exhaust ventilation used in combination with general ventilation as necessary to control air contaminats.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear a face shield and chemical safety glasses or goggles.

SKIN: Wear impervious gloves. Cover exposed skin.

RESPIRATORY: For airborne exposure above the permissible exposure limit(s), wear a NIOSH approved air-purifying respirator equipped with organic vapor cartridges. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator.

WORK HYGIENIC PRACTICES: Avoid eating, drinking or smoking while using this material. Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Strong.

APPEARANCE: Colorless liquid.

FLASH POINT AND METHOD: -21.1°C (-6°F) Closed cup.

FLAMMABLE LIMITS: 1.1% (n-Hexane) to 7.5% (n-Hexane)

AUTOIGNITION TEMPERATURE: Not established.

VAPOR PRESSURE: 153 mmHg at 25°C (77°F)

Notes: n-Hexane

VAPOR DENSITY: Heavier than air.

BOILING POINT: 62.8°C (145°F)

FREEZING POINT: Not established.

SOLUBILITY IN WATER: Insoluble.

EVAPORATION RATE: Moderate.

SPECIFIC GRAVITY: 0.7 (water = 1) at 23.3°C (74°F)

10. STABILITY AND REACTIVITY

STABILITY: Stable.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: High temperatures and ignition sources.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides, nitrogen oxides, chlorine and chlorine compounds, smoke and incompletely burned hydrocarbons.

INCOMPATIBLE MATERIALS: Strong acids and strong oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)	INHALATION LC_{50} (rat)
Solvent naphtha (petroleum), light aliphatic	> 58000 mg/kg	> 4000 mg/kg	3400 ppm/4h
n-Hexane	25000 mg/kg		48000 ppm/4h
Cyclohexane	12705 mg/kg	> 2000 mg/kg	13900 mg/m^3/4h
n-Heptane			103000 mg/m^3/4h

CARCINOGENICITY

IARC: Not regulated as a carcinogen.

NTP: Not regulated as a carcinogen.

OSHA: Not regulated as a carcinogen.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Cyclohexane: LC_{50} (bluegill) 34.7 mg/L/96h; LC_{50} (fathead minnow) 32-93 mg/L/96h; EC_{50} (Daphnia magna) 3.78 mg/L/48h.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose in accordance with local, state, provincial or national regulations.

EMPTY CONTAINER: Product residue is retained. Do not pressurize, cut, weld, braze, solder, drill, grind or expose container to heat, flame, sparks, static electricity or any other sources of ignition.

RCRA/EPA WASTE INFORMATION: If discarded in its purchased form, this material is a RCRA hazardous waste.

GENERAL COMMENTS: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured into drains, sewers or waterways.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Flammable liquids, NOS

TECHNICAL NAME: Hexane

PRIMARY HAZARD CLASS/DIVISION: Class 3

UN/NA NUMBER: UN1993

PACKING GROUP: II

REPORTABLE QUANTITY (RQ) UNDER CERCLA: lbs.

AIR (ICAO/IATA)

SHIPPING NAME: Flammable liquids, NOS

TECHNICAL NAME: Hexane

UN/NA NUMBER: UN1993

PRIMARY HAZARD CLASS/DIVISION: Class 3

PACKING GROUP: II

VESSEL (IMO/IMDG)

SHIPPING NAME: Flammable liquids, NOS

TECHNICAL NAME: Hexane

UN/NA NUMBER: UN1993

PRIMARY HAZARD CLASS/DIVISION: Class 3

PACKING GROUP: II

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

Flammable Liquid

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute, Chronic, Fire.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS
n-Hexane	35 - 45	110-54-3
Cyclohexane	10 - 20	110-82-7

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
n-Hexane	35 - 45	5000 lbs.
Cyclohexane	10 - 20	1000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components are in TSCA inventory.

RCRA STATUS: If discarded in its purchased form, this material is a RCRA hazardous waste.

NATIONAL RESPONSE CENTER: Any spill or release to the environment above the RQ must be reported to the National Response Center (800-424-8802).

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION


Flammable Liquid


Toxic

B2 - Flammable liquid
D2A - Very toxic material causing other toxic effects (Chronic toxicity: peripheric neuropathy)
D2B - Toxic material causing other toxic effects (Skin irritation)

16. OTHER INFORMATION

PREPARED BY: L. Priest

GENERAL STATEMENTS:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
EC_{50}	Median effective concentration
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC_{50}	Lethal concentration to 50% of exposed laboratory animals
LD_{50}	Lethal dose to 50% of exposed laboratory animals
TWA	Time-weighted average
TLV	Threshold limit value
NIOSH	US National Institute of Occupational Safety and Health
NE	Not established
NTP	US National Toxicology Program
OEL	Occupational exposure limit
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
RQ	Reportable quantity
STEL	Short term exposure limit

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