



CHEMICAL PRODUCT SAFETY DATA SHEET

according to the Global Harmonized System

SDS # : 085739

ISOVOLTINE P1

Issuing date: 2016-03-07

Revision Date: 2016-03-07

Version 1

1. IDENTIFICATION

Product identifier

Product name ISOVOLTINE P1

Other means of identification

Number EQO
Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Insulating oil for transformers.

Details of the supplier of the safety data sheet

Supplier

TOTAL LUBRICANTS TAIWAN LTD.
9F, No. 178
Sec. 3, Minquan E. Road
Songsshan District
Taipei City 10542, Taiwan
Tel: +886 3 5983 322 / +886 2 2719 8201
Fax: +886 2 2713 1886

Emergency telephone number

Emergency telephone International: CHEMTREC +1 703 527 3887 (collect calls accepted)
CHEMTREC Taiwan: 00801-14-8954 (toll-free in country)

E-mail Address ms.ap-sds@total.com

2. HAZARDS IDENTIFICATION

Hazard Categories

Classification

Aspiration toxicity - Category 1

Label Content



Signal Word

DANGER



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Hazard Statements

H304 - May be fatal if swallowed and enters airways

Precautionary Statements - Response

- IF SWALLOWED: Immediately call a POISON CENTER/doctor
- Do NOT induce vomiting

Precautionary Statements - Storage

- Store locked up

Precautionary Statements - Disposal

- Dispose of contents/ container to an approved waste disposal plant

Physical and chemical hazards

None

Health Hazards

Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Skin contact	Not classified.
Eye contact	Not classified.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be fatal if swallowed and enters airways. In this case, the product may enter the lungs and lead to the rapid development of very serious pulmonary lesions that may appear in the following hours.
Skin corrosion/irritation	Not classified.
Serious eye damage/eye irritation	Not classified.
Sensitization	Not classified as a sensitizer.
Carcinogenicity	This product is not classified carcinogenic.
Mutagenic effects	This product is not classified as mutagenic.
Reproductive toxicity	This product does not present any known or suspected reproductive hazards.
STOT-single exposure	Not classified.
STOT - repeated exposure	Not classified.
Other adverse effects	Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).



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Aspiration Hazard May be fatal if swallowed and enters airways.

Environmental hazards

Not classified.

Other hazards

Contaminated surfaces will be extremely slippery.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8	64742-55-8	90- <100

4. FIRST AID MEASURES

First Aid

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Inhalation Toxic by inhalation. Seek immediate medical attention/advice.

Skin contact Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.

Eye contact Rinse immediately with plenty of water and seek medical advice.

Ingestion Aspiration hazard if swallowed - can enter lungs and cause damage. Do NOT induce vomiting. Immediate medical attention is required.

Most important symptoms and health effects

Inhalation Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.

Skin contact Not classified.

Eye contact Not classified.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be fatal if swallowed and enters airways. In this case, the product may enter the lungs and lead to the rapid development of very serious pulmonary lesions that may appear in the following hours.



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Advice for protecting first-aid responders Use personal protective equipment.

Special notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media Foam. Carbon dioxide (CO₂). ABC powder.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Runoff may pollute waterways

Fire precautions and protective measures

Special protective equipment for fire-fighters Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information Use personal protective equipment. Avoid breathing vapors or mists. Contaminated surfaces will be extremely slippery. Do not touch or walk through spilled material.

Environmental precautions

General Information Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Prevent product from entering sewers, rivers, waterways or other bodies of water.

Methods and materials for containment and cleaning up

Methods for cleaning up Dam up. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.



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Other information

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information Not applicable.

7. HANDLING AND STORAGE

Handling

Advice on safe handling When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Hygiene measures Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Wash hands with water as a precaution. Avoid breathing vapors, mist or gas. Do not wash off with: Fuel. Solvent. Abrasive. Avoid extended and repeated contact with the skin as this may cause skin conditions, which may also be aggravated by minor injuries or by contact with soiled clothing. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

Storage

Technical measures/Storage conditions Keep away from food, drink and animal feedingstuffs. Keep in a banded area. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture. Store in original container. Keep in properly labeled containers.

Materials to Avoid Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Exposure limits Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Legend See section 16



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Biological standards

Not applicable

Monitoring methods

No information available

Engineering controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal Protective Equipment

General Information

Use personal protective equipment in good condition. If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Respiratory protection

None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Eye Protection

If splashes are likely to occur, wear: Safety glasses with side-shields

Skin and body protection

Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Do not wear rings, watches or anything similar which can retain the product and may give rise to skin conditions. Extended and repeated contacts with skin can cause skin ailments which may be aggravated by minor injuries or contact with soiled clothing.

Hand Protection

Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Appearance

limpid

Color

colorless

Physical State @20°C

liquid

Odor

Characteristic



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Odor Threshold		No information available	
Property	Values	Remarks	Method
pH		Not applicable	
Melting point/range		Not applicable	
Boiling point/boiling range		No information available	
Flash point	160 °C 320 °F		ASTM D92 ASTM D92.
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density	0.820	@ 15 °C	
Density	820 kg/m ³	@ 15 °C	ASTM D4052
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	7.87 mm ² /s 2.32 mm ² /s	@ 40 °C @ 100 °C	ASTM D445 ASTM D445
Explosive properties	Not explosive		
Oxidizing Properties	Not applicable		
Possibility of hazardous reactions	None under normal processing		
Other information			
Freezing Point		No information available	
Pour point	-42 °C		ASTM D97

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Hazardous Reactions	None under normal processing
Conditions to Avoid	Heat, flames and sparks Take precautionary measures against static discharges Heat (temperatures above flash point), sparks, ignition points, flames, static electricity Strong oxidizing agents
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION



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Information on likely routes of exposure

Skin contact	Not classified.
Eye contact	Not classified.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be fatal if swallowed and enters airways. In this case, the product may enter the lungs and lead to the rapid development of very serious pulmonary lesions that may appear in the following hours.

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

Acute toxicity - Product Information

Oral	Not classified. 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
Dermal	Not classified. 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
Inhalation	Not classified. 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)

Skin corrosion/irritation	Not classified.
Serious eye damage/eye irritation	Not classified.
Sensitization	Not classified as a sensitizer.
Carcinogenicity	This product is not classified carcinogenic.

Chemical Name	IARC	European Union
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Distillates (petroleum), hydrotreated light paraffinic 64742-55-8	-	
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Mutagenic effects	This product is not classified as mutagenic.
Reproductive toxicity	This product does not present any known or suspected reproductive hazards.
STOT-single exposure	Not classified.
STOT - repeated exposure	Not classified.
Other adverse effects	Characteristic skin lesions (pimples) may develop following prolonged and repeated exposures (contact with contaminated clothing).
Aspiration Hazard	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not classified.

Acute aquatic toxicity - Product Information

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8	EL50 (72h) > 100 mg/l (Pseudokirchneriella subcapitata - OCDE 201)	EL50 (48h) > 10000 mg/L (Daphnia magna - OCDE 202)	LL50 (96h) > 100 mg/L (Oncorhynchus mykiss - OCDE 203)	

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8		NOEL (21d) 10 mg/l (Daphnia magna - OCDE 211)	NOEL (14/28d) >1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	



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Effects on terrestrial organisms

No information available.

Persistence and degradability No information available.

Bioaccumulative potential

Product Information No information available.

logPow No information available

Component Information No information available

Mobility

Soil Given its physical and chemical characteristics, the product generally shows low soil mobility.

Air Loss by evaporation is limited.

Water Insoluble. The product spreads on the surface of the water.

Other adverse effects

General Information No information available.

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Should not be released into the environment. Dispose of in accordance with local regulations. After use, this oil must be sent to a licensed waste oil facility. Incorrect disposal of used oil poses a risk to the environment. Mixture with other waste types such as solvents, brake- and cooling liquids is forbidden.

Contaminated packaging Dispose of in accordance with local regulations.

Disposal Precautions Refer to section 8 for safety and protective measures for disposal personnel.

14. TRANSPORT INFORMATION

ADR/RID Not regulated



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<u>IMDG/IMO</u>	Not regulated
<u>ICAO/IATA</u>	Not regulated
<u>Transportation notes</u>	No information available

15. REGULATORY INFORMATION

International Inventories No information available

Further information

No information available

National regulatory information

Taiwan

Toxic Chemical Substance Control Act (TCSCA) Complies

16. OTHER INFORMATION

Prepared By Dicky Hu
Product Safety Executive

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Singapore 188720
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Fax: +65 6879 2203

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Revision Note No information available.



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Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

Legend Section 8

Pi* - Absorbed through intact skin to cause systemic effect

Min+ - May have a sensitization effect

G1 - International Agency for Research on Cancer (IARC) carcinogenicity classification: Carcinogenic to humans

G2A - International Agency for Research on Cancer (IARC) carcinogenicity classification: Probably carcinogenic to humans

G2B - International Agency for Research on Cancer (IARC) carcinogenicity classification: Possibly carcinogenic to humans

A1 - ACGIH carcinogenicity classification: Confirmed human carcinogen

A2 - ACGIH carcinogenicity classification: Suspected human carcinogen

A3 - ACGIH carcinogenicity classification: Confirmed animal carcinogen with unknown relevance to humans

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Chemical Product Safety Data Sheet