



SAFETY DATA SHEET

Made in accordance to Regulation (EU) No 2015/830

Heating Oil
Jasol Term Oil 6

Made on: 2013.10.10

Updated on: 20.01.2016

Version: 3

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Jasol Term Oil 6

1.2. Relevant identified uses of the ~~substance or mixture~~ and uses advised against

Identified uses: Jasol Term Oil 6 is used as a heat carrier in heating units in the range of temperatures between -10 and 270°C.

Uses advised against: other uses are not recommended.

1.3. Details of the supplier of the safety data sheet

Manufacturer: Rafineria w Jasle

Address: 40-007 Katowice, ul. Uniwersytecka 13

Phone/Fax No. +48 (13) 44 66 433

E-mail: biurozarzadu@rwj.com.pl

Production plant

38-200 Jaslo, ul. 3 Maja 101

(13) 44 66 316/(13) 44 66 315

biuro@rwj.com.pl

1.4. Emergency telephone number:

Company contact phone no.: in working hours from 7.00 a.m till 3.00 p.m. +48 (13) 44 66 316

In case of emergency: 112 (Emergency number), 998 (Fire Brigade), 999 (Ambulance Service)

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the ~~substance or mixture~~

The product does not meet the classification criteria for any hazard class in accordance to Regulation (EC) No 1272/2008 [CLP] on classification, labelling and packaging of substances and mixtures.

2.2. Label elements

Pictogram: None

Signal word: None

Hazard statements: None

Precautionary statements: None

2.3. Other hazards

The product does not meet the PBT or vPvB criteria according to Annex XIII of REACH Regulation.



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SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances – not applicable

3.2. Mixtures: mixture of mineral base oil and additives to improve property supplies of heating oil.

Hazardous ingredients and its concentrations in the mixture:

<u>Substance name</u>	<u>CAS No/ EC No</u>	<u>REACH registration number</u>	<u>Concentration [% wt.]</u>	<u>Classification according to 67/548/EEC</u>
Distillates, (petroleum) heavy hydrocracked. *Unspecified base oil	265-157-1/ 64742-54-7	01-2119484627- 25-0034	>99	Not classified

*Substances, which have the maximum permissible concentration in the work environment determined at national level - see subsection 8.1.

On a basis of L note unspecified base oils used in a mixture are not classified as carcinogenic. (DMSO extract content(according to IP 346) <3%.)

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation:

In the case of inhalation exposure remove the victim from the exposure area to fresh air and keep warm and quiet. Place an unconscious person in the recovery position, loosen tight parts of clothes; control and maintain patency of the airways. Give oxygen in the case of breathing disorders; if not breathing, use artificial ventilation. In the case of loss of consciousness, respiratory disorders or persisting symptoms obtain medical aid immediately.

Skin contact:

Immediately remove contaminated/soaked clothes and shoes. Thoroughly wash contaminated skin with soapy water or mild detergent, and then rinse with water. Do not use organic solvents; eg. kerosene or gasoline for washing. Consult a doctor if irritation symptoms appear and persist.

Eye contact:

Flush the contaminated eyes with running water, remove contact lenses (if worn) and continue flushing for approx. 15 minutes. When flushing, keep the eyelids wide open and move the eyeball. Consult a doctor if symptoms appear and persist.

Swallowing:

Immediately obtain medical aid. DO NOT induce vomiting – increased risk of aspiration. In the case when spontaneous vomiting occurs, keep the victim leaning forward, with her/his face directed to the ground in order to limit the risk of aspiration.



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4.2. Most important symptoms and effects, both acute and delayed

May cause lung damage if swallowed what is revealing for example by bronchial pneumonia. Repeated or prolonged exposure can cause disturbances of the central nervous system. In the case of repeated exposure it may cause skin drying, peeling and cracking.

4.3. Indication of any immediate medical attention and special treatment needed

Show the material safety data sheet or the label/container to the medical staff.

If patient is unconscious, perform gastric lavage after endotracheal intubation.

Control heart rhythm.

Indications for a doctor: symptomatic and supportive treatment.

SECTION 5. PROCEEDING IN CASE OF FIRE

5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide, dry powder, foam; water spray or water mist.

Unsuitable extinguishing media: water jet. There is a danger of burning liquid spreading on the surface of water. In case of tanks possible burst of burning product with great force.

5.2. Special hazards arising from the substance or mixture

Flammable liquid. Its vapours, heavier than air, spread over the ground, concentrate at lower parts of rooms. Ignition from open flames, hot surfaces.

Product vapours create explosive mixtures with air. In the fire environment smokes containing carbon oxides and other unidentified thermal decomposition products of higher hydrocarbons and additives are formed. Avoid breathing products being released in the fire environment - they may be hazardous for health.

5.3. Advice for firefighters

Proceed in accordance to procedures applicable for extinguishing chemical fire.

Small fires should be extinguished with powder chemical extinguisher or carbon dioxide fire extinguisher.

Large fires extinguish with foam or dispersed streams of water.

Cool adjoining tanks and packaging by spraying water from a safe distance.

Do not allow to penetrate the fire fighting sewage into drains or waterways.

The waste and residues formed after a fire dispose in accordance with local regulations.

People involved in fire fighting action should be trained, equipped with the proper protective clothing and equipment. In the case that no risk is not confirmed provide breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

If necessary, an evacuation shall be carried out. Call the National Fire Service, fire rescue, and the police immediately. Only trained persons, equipped with relevant PPE are allowed to take part in rescue operation.

Failures shall be notified to public. All persons who do not participate in elimination of the consequences of an event shall be removed from the designated fire zone.

If there is a leakage the area poses a potential explosion hazard zone. Eliminate sources of ignition. No smoking.



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Use sparking tools is forbidden. Avoid direct contact with skin and eyes. Do not breathe vapours.
Use individual protection measures – see section 8 of the Safety Data Sheet.

6.2. Environmental precautions

Prevent the product from penetrating drains, waters or soil. If it is possible and safe, stop or limit product release, seal, shut off the fluid source, place the damaged container in an emergency container. Limit spreading of the great leakages by embanking the area.

Notify respective authorities in the case of release of large quantities of the product and environmental pollution.

6.3. Methods and material for containment and cleaning up

Cover up small spillage with non-flammable, neutral absorbent material (e.g soil, sand, vermiculite) and collect in an appropriate, closed, labelled waste container. Pump off large amounts of liquid. Clean the contaminated area with water with detergent. Rinse residues with water. Larger amounts collected dispose according to the applicable regulations. If necessary, obtain help from specialist companies dealing with waste transport and utilisation in order to remove the product/absorbent material contaminated with the product.

Dispose according to the applicable regulations.

6.4. Reference to other sections

For information on appropriate personal protection equipment see Section 8.

For information regarding waste disposal see Section 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Prevention against intoxication: Prevent against formation of vapour concentration exceeding pre-determined allowable occupational exposure limits. Provide effective ventilation. Avoid direct contact with liquid or eye contamination. Avoid inhaling vapours/clouds. Prevent against clothes' contamination. Non-service containers shall be sealed. Apply personal protective equipment in accordance with information specified in Section 8 of Data Sheet. Observe basic hygiene procedures: do not eat, do not drink, and do not smoke at workstation. Contaminated clothes shall be immediately exchanged with clean items. The product perfectly absorbs itself through undamaged skin. Prevent against pouring with the product, specifically huge body surface area. On completion of works, it is always necessary to wash hands with water and soap.

Prevention against fire and explosion: Prevent against formation of flammable/explosive concentration of vapours in air. Eliminate sources of ignition – do not use open fire, do not smoke cigarettes, do not use sparking equipment and tools; do not use clothes made of electrizable fibre. Apply precautionary measures to prevent against electrostatic discharges. Earth all devices that are used with the product. Protect containers against heating-up. Provide easy access to extinguishers and rescue equipment (in case of fire, spill, leakage, etc.) in the location where it is applied and stored.

ATTENTION: Emptied, non-cleaned containers may contain remains of the product (liquid, vapours) and create fire/explosion hazard. Handle with care. Non-cleaned containers shall not be heated, cut, drilled, ground, or welded. Those actions shall not be carried out in the vicinity.

7.2. Conditions for safe storage, including any incompatibilities

In a place of use and storage of the product, provide easy access to emergency equipment (in case of fire, release,



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etc.). Store should be stored in tightly sealed and properly labelled containers, in a cool, well ventilated place with a non-absorbing ground. The product may be stored in storage tanks in accordance with applicable regulations.

Store far from heat sources, protect against mechanical contamination and water accumulation. Keep away from strong oxidisers.

7.3. Specific end use(s)

No data available.

SECTION 8. EXPOSURE CONTROL AND PERSONAL PROTECTION EQUIPMENT

8.1. Control parameters

Mineral oils (liquid phase of aerosol)*

TLV-TWA: 5 mg/m³,

TLV-STEL: - mg/m³,

TLV-C: -

*In conditions when vapours and fumes are formed - not applicable.

DNEL, PNEC – no data available for the mixture

Regulation of the Minister of Work and Social Policy dated June 6th, 2014 on the maximum occupational levels of factors hazardous to health at the workplace (*Journal of Laws of 23 June 2014, item 817*)

Concentration limits of substances in biological material: not determined

8.2. Exposure controls

Recommendations to the procedure of monitoring of hazardous components in the air - method of measurements:

Recommended methods of exposure assessment in the air:

- PN-Z-04008-7:2002 – “Air purity protection -- Sampling methods -- Principles of air sampling in work place and interpretation of results”

- PN-Z-04108-6:2006 „Air purity protection -- Determination of mineral oil (liquid phase aerosol) in work places by absorption spectrometry method in ultra-violet ”.

-PN-Z-04108-5:2006 „Air purity protection -- Tests for content of oils -- Determination of mineral oil (liquid phase of aerosol) in work places by absorption spectrometry method in infra-red”

Appropriate engineering controls:

It is necessary to apply local exhaust ventilation, which removes vapours from places of emission as well as the general ventilation of rooms. Suction holes at local ventilation should be below or directly at the working level. The exhausts for air from general ventilation should be placed both on the floor and in the top part of the room. The electrical and lighting installation should be explosion-proof. Ground all equipment (including storage tanks) used to handle with the product. Use non-sparking tools.



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Individual protection measures

Eye or face protection:

Tight safety eyeglasses (goggles) in the case of prolonged exposure or the risk of liquid splashing to the eye. It is recommended to equip the workplace with a water shower to flush eyes.

Skin protection:

Hand protection: protective gloves are required to protect against petroleum products made of nitrile rubber or other gloves authorized by the manufacturer of gloves for work with this type of product.

Body protection: work clothing is required, oil-resistant, anti-slippery shoes are recommended.

Respiratory protection:

Not required under normal conditions of use. In case of insufficient ventilation, wear a mask with universal filter-absorber. In the case of work in the limited space / insufficient oxygen content in the air, a large uncontrolled emissions, and in all circumstances when the mask with filter-absorber does not provide sufficient protection use self-contained respiratory equipment.

Thermal hazards:

Not applicable

Environmental exposure controls:

Consider using precautionary measures in order to protect the area around storage tanks.

Follow the standards regarding the permissible environmental pollution identified in the regulations in force.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- | | |
|--|--|
| a) Appearance | : Liquid, light brown |
| b) Odour | : characteristic for petroleum product |
| c) Odour threshold | : No data available |
| d) pH | : Not applicable |
| e) Melting/solidification temperature | : max -13°C (pour point) |
| f) Initial boiling temperature and melting temperature range | : not determined |
| g) Ignition point | : > 230°C |
| h) Evaporation rate | : No data available |
| i) Flammability (solid, gas) | : Not applicable for liquids |
| j) Upper/lower flammability limit or upper/lower explosion limit | : Not applicable |
| k) Vapour pressure | : Not relevant |
| l) Vapour density | : Not relevant |
| m) Relative density | : approx. 0,88 g/cm ³ (at 15°C). |
| n) Solubility | : Insoluble in water. Soluble in hydrocarbon solvents. |
| o) Distribution coefficient n-octanol/ water | : Not determined |
| p) Self-ignition point | : Not determined |



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q) Decomposition temperature	: Not determined
r) Viscosity	: approx 50 mm ² /s at 40 °C
s) Explosive properties	: Not applicable
t) Oxidizing properties	: Not applicable

9.2. Other information

None

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

The product is not reactive.

10.2. Chemical stability

The product is stable under normal ambient conditions, as well as under the expected temperature and under the expected pressure.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid:

Electrostatics, high temperature, open flame and other ignition sources.

10.5. Incompatible materials

Strong oxidisers

10.6. Hazardous decomposition products

No decomposition when it is used as intended. Thermal decomposition products formed during a fire can be hazardous – see subsection 5.2 of the safety data sheet.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects (for a product no data available, for similar product – base oil)

Acute toxicity:

LD₅₀: >5000 mg/kg (oral, rat)

LC₅₀: >5, 53 mg/l (inhalation, rat)

LD₅₀: >5000 mg/kg (skin, rabbit)

Skin corrosion/irritation:

Irritating to the skin. Degreasing and irritating, and prolonged contact can cause cracking, drying and peeling of the skin.

Serious eye damage/irritation:

Classification criteria have not been met based on the available data.

Respiratory or skin sensitisation:

Classification criteria have not been met based on the available data.

Germ cell mutagenicity:



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Classification criteria have not been met based on the available data.

Carcinogenicity:

Classification criteria have not been met based on the available data. Based on L Note the substance is not classified as carcinogenic (DMSO extract content (according to IP 346) < 3%).

Reproductive toxicity:

Classification criteria have not been met based on the available data.

STOT – single exposure:

Route of exposure - inhalation. In the form of vapour or aerosol causes watery eyes, redness, coughing. May cause drowsiness or dizziness.

STOT – repeated exposure:

Classification criteria have not been met based on the available data.

Aspiration hazard

When product is released (by aspiration) from the gastrointestinal tract into the lungs it can cause serious damage - do not allow vomiting. General intoxication symptoms may be observed the same as for inhalation exposure - breathing disorders, lung irritation with fever and cough; high doses may cause disorders of the central nervous system. In case of severe poisoning possible loss of consciousness, coma, death can occur due to respiratory failure.

SECTION 12. ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects

12.1. Toxicity:

For finished product no data available, data for: Unspecified base oil

EC50: >10000 mg/l – acute toxicity test on fresh-water invertebrates; Daphnia magna, 48h

NOEL: 100 mg/l – chronic toxicity test on invertebrates; Daphnia magna, 21 days

EC50: >100 mg/l – acute toxicity test on fresh-water algae; Pseudokirchinella subcapitata, 72h

LC50: >100 mg/l – acute toxicity test on fresh-water fish; Pimephales promelas, 96h

Sediment:

Toxicity test on sediment microorganisms: none (test scientifically unjustifiable)

Land environment:

Toxicity test on invertebrates: none (test scientifically unjustifiable)

Toxicity test on plants: none (test scientifically unjustifiable)

Toxicity test on birds: none (test scientifically unjustifiable)

12.2. Persistence and degradability

Limited level of biodegradability, not soluble in water.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

Limited, due to the product's gravity of <1 g / cm³ and that the product is insoluble in water, a product has little ability to penetrate. It can be hazardous to environment in case of misuse or in emergency situations - the product



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penetrates into the ground, causing contamination of the groundwater.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of REACH Regulation, the product does not meet PBT or vPvB criteria.

12.6. Other adverse effects

Toxic to aquatic life with long lasting effects. Permissible content in wastewater put into water and soil: petroleum products - 15 ml / l. follow the standards for permissible environment pollution within the framework of the current regulations. The product is insoluble in water and spreads on the surface of water, forming a thin film that limits oxygen transfer to water.

SECTION 13. HANDLING OF WASTES

13.1. Waste treatment methods

Do not dispose to sewer. Avoid contamination of surface and ground waters. Consider reuse. Waste product should be recovered or utilised at professional, approved furnaces or waste recycling/neutralization facilities, in accordance with applicable regulations.

Do not dispose to water reservoir and sewage sludge. Avoid contamination of water and soil with concentrated product.

The Act of 14 December 2012 on wastes (*Dz.U. of year 2013, item 21, with amendments*)

Regulation of the Minister of Environment of 9 December 2014, on wastes catalogue (*Dz. U. 2014, item 1923*)

Waste code: 13 02 05* mineral-based non-chlorinated engine gear and lubricating oils.

13.2. Packaging

Recovery / recycling / utilisation of package wastes should be performed according to the applicable regulations. **NOTE:** Only completely emptied and cleaned packages may be returned for recycling. Use services of authorised companies.

The Act of 13 June 2013 on packages and package wastes (*Dz.U. item 888*)

SECTION 14. TRANSPORT INFORMATION

The product is not a subject to transport regulations on hazardous goods included in ADR (road transport), RID (rail transport), IMDG (marine transport) and ICAO/IATA (air transport).

14.1. UN number :not applicable

14.2. UN Proper shipping name :not applicable

14.3. Transport hazard class(es) :not applicable

14.4. Packing group :not applicable

14.5. Environmental hazards :not applicable

14.6. Special precautions for users :not applicable



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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code :not applicable

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Regulation of the Commission (EC) No. 2015/830 of 28 May 2015 amending regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) as amended
- Regulation (EC) No. 1907/2006 of the European Parliament of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) as amended
- Regulation of the Commission (EC) No. 453/2010 of 20 May 2010 amending regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) as amended
- Regulation of the European Parliament and the Council (EC) No. 1272/2008 of 16 December 2008 on classification, labelling and packing substances and mixtures, amending and repealing directives 67/548/EEC and 1999/45/EC and amending regulation (EC) No. 1907/2006
- Regulation of the Minister of Economy of 21 December 2005 on essential requirements for personal protection (Journal of Laws of 2005 No. 259, item 2173)
- Regulation of the Minister of Work and Social Policy dated June 6th, 2014 on the maximum occupational levels of factors hazardous to health at the workplace (Dz.U. 2014, item 817)
- Regulation of the Minister of Environment of 9 December 2014, on wastes catalogue (Dz. U. 2014, item 1923)
- Regulation of the Minister of Health of 30 December 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal of Laws of 2005 No. 11, item 86)
- The Act of 14 December 2012 on wastes (Dz.U. of year 2013, item 21)
- Regulation of the Minister of Economy, Labour and Social Policy of 31 March 2003. on essential requirements for personal protective equipment (Dz.U.03.80.725), as amended
- The Act of 13 June 2013 on packages and package wastes (Dz.U. item 888)
- Act of 25 February 2011 on chemicals and their mixtures (Journal of Laws of 2011 No. 63 item 322)

15.2. Chemical safety assessment

No data available for chemical safety assessment for substances included in a mixture.

SECTION 16. OTHER INFORMATION

16.1. Update range

Not applicable.

16.2. Abbreviations and acronyms in the Safety Data Sheet

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	The Regulation on classification, labelling and packaging; Regulation (EC) No 1272/2008
DNEL	Derived No Effect Level
DPD	Dangerous Preparations Directive 1999/45 / EC
DSD	Dangerous Substances Directive 67/548 / EEC
EC ₅₀	Concentration at which 50% inhibition of growth or growth rate is observed
ICAO	Technical Instructions for the Safe Transport of Dangerous Goods by Air
IATA	International Air Transport Association
IMDG	International Maritime Transport of Dangerous Goods
TLV-TWA	Threshold Limit Value
TLV-STEL	Threshold Limit Value, Short Term Exposure Limit
TLV-C	Ceiling exposure limit
LD ₅₀	Dose that will kill 50% of the test animals
LC ₅₀	Concentration that will kill 50% of the test animals
PBT	Persistent, bioaccumulative, and toxic (substance)
PNEC	Predicted No Effect Concentration
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
UVCB	Unknown substances, of Variable Composition, or of Biological Origin
vPvB	very Persistent, very Bioaccumulative (substance)

This Safety Data Sheet has been prepared based on data provided by the manufacturers of ingredients the product, according to the national legislation in force at the date of SDS update and owned knowledge. Employees who use the product should be trained on risks for health, hygiene requirements, the use of individual protection measures and actions preventing the accidents.

Safety data sheet is not a quality certificate for the product. All data presented in this sheet are to be taken only as a help in safe handling in transport, distribution, use and storage. They may be obsolete or insufficient for this product used in conjunction with other materials or in different applications than those specified in the Safety Data Sheet.

The user is obliged to follow all applicable standards and regulations and is also responsible for inappropriate use of information contained in this sheet or for an inappropriate use of the product.
