

Material Safety Data Sheet

compliant with the Regulation (EU) No. 453/2010

LO/3/15

Date of issue: 04.03.2015

Updating: -

Edition no. 1

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product identifier:

Trade name: **LOTOS SYNTHETIC A5/B5 SAE 5W-30**

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

1.2.1 Applications identified: *designed for use in gasoline and diesel engines in passenger cars and vans.*

1.2.2 Uses advised against: none

1.3 Details of the supplier of the safety data sheet:

LOTOS OIL SA,
80-718 GDANSK, 135 Elbląska Street
telephone number: (48) 58 308 7321, fax: (48) 58 308 8418
reach@grupalotos.pl
www.lotos.pl

1.4 Emergency telephone number:

LOTOS Fire Brigade and Company Emergency Centre: 058-308-81-99 round the clock; 058-308-81-09 *round the clock*

Section 2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No. 12 72/20 08 [CL P]:

According to the classification criteria for mixtures, and on the basis of research results and literature data, the product is classified as a dangerous mixture (Section 15 pos. 15.1.7).

Eye Irrit. 2 H319 Irritating to the eyes

Classification according to Directive 19 99/45/EC:

According to the classification criteria for mixtures, and on the basis of research results and literature data, the product is not classified as a dangerous mixture (Section 15 pos. 15.1.3 - 15.1.4).

2.2 Label elements:

Classification according to Regulation (EC) No. 12 72/20 08 [CL P]:



Hazard word: **Note**

H319 Irritating to the eyes

P280 Wear protective gloves / protective clothing / eye / face protection - use airtight goggles.

P305 + P351 + P338 IF IN THE EYES: Carefully rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 In case of persistent eye irritation: Get medical advice / attention of a physician.

2.3 Other hazards:

The mixture does not meet the criteria for PBT or vPvB.

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When working with hot product there is a risk of thermal burns.

The product may cause irritation of the respiratory system, where present in the form of oil mist or in the form of a vapour, or after ingestion.

Research conducted for similar products have shown no harmful effects on the eyes or shown minimal irritation.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

3.2 Mixtures:

Number			Concentration [% m/m]	Substance name	Substance classification	
registration:	CAS:	EC:			DSD*	CLP**
01-2119543726-33	93819-94-4	298-577-9	< 1.35	Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)]bis(dithiophosphate)	Xi R38 Xi R41 N R51/53	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411
01-2119474889-13	72623-87-1	276-738-4	< 81.5	Base oil - unspecified	Xn R65	Asp. Tox. 1; H304

* Directive 67/548/EEC

** Regulation (EC) No. 1272/2008

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures:

By inhalation:

If harmful effects of vapour are observed on the injured, take the person out or remove from the danger area into open air. Remove contaminated clothing. Ensure calmness and warmth (cover with blankets). Control breathing and pulse.

When breathing is difficult, give oxygen. If breathing has stopped, apply artificial respiration using the AMBU apparatus, after cleaning the mouth with foreign bodies and mucus. If it becomes necessary, perform cardiac massage.

In the case of contact with the skin:

Remove contaminated clothing. Place of contact, and if necessary, the whole body must be washed thoroughly with soap and water, unless there are no burns.

For cleaning, **do not** use organic solvents such as kerosene, light distillates and gasoline.

In the case of hot product contact with the skin, the injured area should be immediately immersed in cold water or exposed to a stream of cold tap water for at least 10 minutes.

If the product has penetrated under pressure to subcutaneous tissues, immediately give the injured medical help.

After eye contact:

Causes eye irritation. This irritation may cause redness and swelling of the eyes.

Carefully rinse the eyes with water for at least 15 minutes. Keep your eyes open. Protect the unharmed eye. Avoid strong stream of water due to the risk of damage to the cornea. If it is possible and easy to do, remove contact lenses of the injured. In the event of the occurrence and persistence of irritation, blurred vision, or swelling, light-sensitiveness, please refer to the specialist.

Note! People exposed to the contamination of the eyes should be instructed on the necessity and method of immediate washing.

Ingestion / aspiration:

Do not induce vomiting because there is the possibility of the product entering into the respiratory system, which can cause aspiration pneumonia, and it requires immediate treatment.

In the case of contamination of the mouth, wash it thoroughly with water until the taste vanishes.

In the case of instances of vomiting put the injured with the face to the ground in order to reduce the risk of the substance entering the bronchi and the lungs. Call a doctor as soon as it is possible or take the injured to the hospital, show the packaging or the label.

Advice for a doctor: When the patient is unconscious, gastric lavage should be carried out by gavage after prior endotracheal intubation. Control the heart rhythm. Treat symptomatically.

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4.2 Most important, both acute and delayed symptoms and effects of exposure:

A brief summary of information on acute and delayed symptoms and effects of exposure: Not determined.

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

Information on clinical indications and medical monitoring for delayed effects: Not determined.

Section 5. FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Foam (only properly trained personnel), water spray (only properly trained personnel), dry chemical powder, carbon dioxide and other inert gases (according to law), sand or earth.

Unsuitable extinguishing media:

Do not use direct stream on burning product. One should prevent the simultaneous use of foam and water on the same surface as water destroys the foam.

5.2 Special hazards arising from the substance or mixture:

Incomplete burning often causes a complex mixture of solid and liquid particles floating in the air and gases, including carbon monoxide and unidentified organic and inorganic mixtures.

5.3 Advice for fire-fighters:

In the case of a large fire or fires in confined or poorly ventilated areas one should also use full fire resistant protective clothing and a self contained breathing apparatus with full face mask operating on the principle of hypertension.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 *For non-emergency personnel:*

Stay away from the site of the leak. Alert emergency personnel. Stand on the windward side.

6.1.2 *For emergency responders:*

Stop or control the leak at source if it is safe. Avoid direct contact with the spilled material. In the case of large spills, notify residents of areas located downwind. If it is safe, eliminate all sources of ignition (e.g. electricity, sparks, fire, torches).

Clothing and equipment:

Small spills: usually adequate standard anti-static clothing is appropriate.

Significant spills: full suit of anti-static material resistant to chemical agents. Work gloves (preferably protective equipment) to ensure effective protection against chemical agents. Gloves made of polyvinyl chloride are not waterproof and therefore not suitable for use in an emergency. Hard hat. Anti-static, non-slip shoes. Safety goggles or face shield, if splash or other eye contact with them is possible or expected. Respiratory system protection: depending on the amount of spilled material and the estimated range of exposure one can be use half-mask or full mask respirator with combined dust filters / filter vapours of organic substances or self contained breathing apparatus. If you can not fully assess the situation, or if there is a risk of oxygen deficiency, only self contained breathing apparatus should be used.

6.2 Measures for environmental protection:

Prevent product from entering sewers, rivers and other bodies of water or the underground (tunnels, basements, etc.).

6.3 Methods and materials for containment and cleaning up:

6.3.1 *Recommendations for preventing the spread of the spill:*

On the ground: If necessary, surround the product with dry dike earth, sand or other non-combustible material. Significant spills may be carefully covered with foam (if available) to reduce the risk of fire. Use with adequate ventilation inside buildings or in confined spaces (if applies).

On the surface of water: For small spills into closed waters, control the product with floating barriers or other equipment. Collect the spilled product using special floating absorbents. As far as possible, large spills in open waters should be controlled using floating barriers or other mechanical means. If this is not possible, it is necessary to control the spread of the spill and collect the product by skimming or other suitable mechanical means. The use of dispersants should be recommended by a specialist and (if necessary) the action should be approved by local authorities.

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6.3.2 Recommendations for the elimination of leakage:

On the ground: Absorb the spilled product with suitable, non-flammable materials. Collect the unbound product with available means. Transfer the collected product and other contaminated materials to appropriate tanks or containers for recovery or disposal in a safe manner. In the case of soil contamination, the contaminated layer should be removed and undergo treatment, in accordance with local regulations.
On the surface of water: Collect the recovered product and other materials to the respective tanks or containers for recovery or disposal in a safe manner.

6.3.3 Information on improper methods of containment: not specified.

6.4 Reference to other sections:

Detailed information on exposure control and waste disposal, see sections 8 and 13.

Section 7. HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1 Precautions for safe handling:

7.1.1 Recommendations for safe use:

While working with the product, follow the general rules and regulations of health and safety and fire protection. The work must be performed in a well ventilated area, avoid contact with eyes and skin. Avoid release to the environment, do not empty into drains. Do not swallow.

7.1.2 Advice on general occupational hygiene:

Ensure the implementation of appropriate disciplinary action. Keep the product away from food and beverages. During use of the product one must not eat, drink or smoke. After working with the product thoroughly wash your hands. Do not allow the accumulation of contaminated materials in the workplace or to keep them in pockets. When you have finished your work shift, remove contaminated clothing.

7.2 Conditions for safe storage, including information about any incompatibilities:

Store only with materials of the same hazard class, away from oxidizing materials, acids and bases that could cause corrosion of containers. Do not store near food and feed.

Store it in properly labelled containers or in enclosed steel tanks to protect the product against contamination and in accordance with applicable regulations.

Packaging and containers should be set in a vertical position, protected against falling, being hit or mechanical damage, protected from heat. Storage areas should be cool, well ventilated.

7.3 Specific use (s): none

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 NDS occupational exposure limits (legal basis - section 15 pos. 15/01/12)

	NDS [mg/m ³]	NDSch [mg/m ³]	NDSP [mg/m ³]
Highly refined mineral oils with the exception of cutting fluids - inhalable fraction	5	-	-

8.1.2 Information on currently recommended monitoring procedures

Follow the regulations on monitoring air quality and the following Polish standards:

PN-Z-04008-7:2002 "Principles of air sampling in the work environment and the interpretation of results";

8.1.4 DNEL and PNEC values: no data

8.2 Exposure control:

Observe the safety and health at work rules: in the workplace, do not eat or drink; after every work, wash the hands (or even the whole body). Water and soap should be used as cleaning agents. **Do not** use organic solvents; do not use this product near sources of ignition and hot surfaces, avoid open flames; Use clothing, gloves and antistatic shoes in the explosive zone; keep protective clothing clean.

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8.2.1 Appropriate engineering controls:

Use general ventilation of rooms and local exhaust ventilation removing vapour from emission places. Local ventilation is essential for the formation of mists and vapours.

8.2.2 Individual protection measures, such as personal protective equipment:

- eyes and face protection: safety goggles or face shield, if splash or other eye contact with them is possible or expected.
- skin protection: in order to minimize the potential risk, the use of protective clothing and oil resistant gloves (e.g. nitrile) and footwear adapted to contact with hot objects are recommended.
- respiratory protection: no protection is required, however, do not inhale vapours.
If there is a risk of exposure to the risk of concentrated vapours or mist generation, use a protective mask with a filter.
- thermal hazard: gloves should be heat-resistant and thermally insulated, if they are possible or expected to contact the product being hot.

8.2.3 Environmental exposure controls: none

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:	Liquid with light yellow to amber colour
Smell:	Oil type
Odour threshold:	Undetermined
pH:	Undetermined
Melting / freezing point:	Undetermined
Initial boiling point and boiling range [°C]:	Undetermined
Ignition temperature [°C]:	> 210 (open cup)
Evaporation rate:	Undetermined
Flammability (solid, gas):	Undetermined
Upper / lower flammability or upper / lower explosion limit:	Undetermined
Vapour pressure at 40°C [kPa]:	Undetermined
Vapour density:	Undetermined
Density at 15°C [kg/m ³]:	Undetermined
Solubility:	Soluble in most organic solvents
Partition coefficient of n-octanol/water:	Undetermined
Auto-ignition temperature [°C]:	Undetermined
Decomposition temperature [°C]:	Undetermined
Kinematic viscosity at 40°C [cSt]:	53.0
Explosive properties:	None
Oxidising properties:	None

9.2 Other information: The above data is typical values and does not constitute specifications.

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity: In conditions of use does not show an increased reactivity.

10.2 Chemical stability: In normal conditions the product is stable.

10.3 Possibility of hazardous reactions: In conditions of use does not cause dangerous reactions.

10.4 Conditions to avoid: Avoid ignition sources and heat when in explosive atmosphere.

10.5 Incompatible materials: Strong oxidisers.

10.6 Dangerous products of decomposition: At high temperatures, thermal decomposition may product. Characteristics of the resulting product will depend on the decomposition conditions. Gases and vapours can be emitted: oxides of carbon, sulphur, nitrogen, phosphorus, hydrogen sulphide and hydrocarbons.

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Section 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

~~11.1.1 Substances:~~

11.2.1 Mixtures:

- a) Acute toxicity
Based on available data, the classification criteria are not met.
- b) Irritant effect
On the basis of the content of the ingredients, the product is classified as irritation.
- c) Caustic effect
Based on available data, the classification criteria are not met.
- d) Sensitizing effects
Based on available data, the classification criteria are not met.
- e) Repeated dose toxicity
Based on available data, the classification criteria are not met.
- f) Carcinogenicity
Based on available data, the classification criteria are not met.
- g) Mutagenicity
Based on available data, the classification criteria are not met.
- h) Toxicity for reproduction
Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics: The product may cause irritation of the respiratory system, where present in the form of oil mist or in the form of a vapour, or after ingestion. The product is neutral, but in the case of splashes or exposure to vapours may cause eye irritation. Research conducted for similar products have shown no harmful effects on the eyes or shown minimal irritation. The product is neutral, but in the case of repeated or prolonged contact with the skin, the product may cause skin disorders, symptoms of which may include: mild irritation, redness, drying and cracking of the skin.

Section 12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Based on available data, the classification criteria are not met.

12.2 Persistence and degradability:

No specific data.

12.3 Bioaccumulative potential:

No specific data. Bioconcentration factor (BCF) is not determined. Studies have shown that the BCF for petroleum products is negligible due to the low solubility in water.

12.4 Mobility in soil:

No specific data for the mixture.

12.5 Results of PBT and vPvB assessment

No data.

12.6 Other adverse effects:

The product does not contain substances hazardous to the ozone layer.

Section 13. DISPOSAL CONSIDERATIONS

Note! Product residues in empty containers may cause explosion and fire.

Do not weld, heat, cut or drill into tanks or containers with the product or that have earlier contained the product.

13.1 Waste treatment methods:

Do not empty into drains, prevent pollution of surface and groundwater and soil. Use waste containers resistant to hydrocarbons, sealed and labelled.

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The product that is not suitable for use or used, it should be directed to the nearest collection point of waste.

The recovery or disposal of the product should be carried out in accordance with the rules and plans of management and environmental protection requirements only in the place designated, i.e. in installations or devices that meet certain requirements. For disposal thermal transformation is recommended.

Disposable containers are disposed of in accordance with the current regulations concerning the management of packaging waste. In contrast, reusable packaging can be reused after cleaning.

Dispose of waste in accordance with the legal provisions (Section 15 points 15.19 - 11).

Section 14. TRANSPORT INFORMATION

14.1 UN number: Not applicable

14.2 Proper shipping name: Not applicable

14.3 Class (es) of transport hazard: Not applicable

14.4 Packing group: Not applicable

14.5 Environmental hazards: Not applicable

14.6 Special precautions for users: Not applicable

14.7 Transport in bulk according to Appendix II of MARPOL 73/78 and the IBC Code: Not applicable

The product is not subject to regulations concerning the carriage of dangerous goods (ADR / RID / AND, IMDG and IATA DGR IT) (Section 15 pos.15.1.8-15.01.23).

Section 15. REGULATORY INFORMATION

15.1 Laws concerning the safety, health and environmental protection specific for the substance or mixture:

- 15.1.1 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency (Journal of Laws EU L 396 of 30 December 2006 and amendments, Journal of Laws EU L 136 of 29 May 2007 as amended).
- 15.1.2 Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 15.1.3 Act of 25 February 2011 *on chemical substances and mixtures* (Journal of Laws 06.137.984, as amended)
- 15.1.4 Regulation of the Minister of Health of 10 August 2012 on the criteria and classification of chemical substances and mixtures (Journal of Laws of 2012, item 1018 as amended).
- 15.1.5 Regulation of the Minister of Health on 20 April 2012 on labelling of hazardous substances and mixtures, and certain mixtures (Journal of Laws of 25.04.2012, item 445, as amended)
- 15.1.6 Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 *on the approximation of laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.*
- 15.1.7 Regulation of the European Parliament and the Council Regulation (EC) No 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Journal of Laws EU L 353 of 31 December 2008, as amended).
- 15.1.8 Directive of the European Parliament and of the Council 2008/98/EC on waste and repealing certain Directives (Journal of Laws EU L 312 of 22 November 2008)
- 15.1.9 Council Directive 91/689/EEC on hazardous waste, amended by: the Council Directive 94/31/EWG and extended by the Council Decision 94/904 establishing a list of hazardous waste
- 15.1.10 - Act of 14 December 2012 on Waste (Journal of Laws of 2013, item 21 as amended).
- 15.1.11 The Regulation of the Minister of Economy and Labour dated 4 August 2004 *on the detailed procedure of waste oils* (Journal of Laws 04.192.1968)
- 15.1.12 Regulation of the Minister of Labour and Social Policy of 6 June 2014 *on the maximum permissible concentrations and intensities of harmful factors in the work environment* (Journal of Laws of 2014.817 as amended)

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- 15.1.13 The Regulation of the Minister of Health dated February 2, 2011 *on tests and measurements of harmful factors in the work environment* (Journal of Laws 11.33.166)
- 15.1.14 The Regulation of the Minister of Health of 30 December 2004 *on safety and health related to the occurrence of workplace chemicals* (Journal of Laws 05.11.86, as amended).
- 15.1.15 The Regulation of the Minister of the Environment of 18 November 2014 on the conditions to be met when discharging sewage into water or soil and on substances particularly harmful to the aquatic environment (Journal of Laws of 2014.1800, as amended).
- 15.1.16 Regulation of the European Parliament and Council Regulation (EC) No 1005/2009 of 16 September 2009 on substances that deplete the ozone layer (Journal of Laws UE.L.2009.286.1 as amended)
- 15.1.17 The Regulation of the Minister of Construction of 14 July 2006 *on how the responsibilities of suppliers of industrial waste and the introduction of waste water into the sewage system are implemented* (Journal of Laws 06136964)
- 15.1.18 European Agreement *concerning the International Carriage of Dangerous Goods by Road* (ADR) (Journal of Laws 11.110.641)
- 15.1.19 The Act of 20 June 1997 - *Road Traffic Law* (Journal of Laws 05.108.908, as amended)
- 15.1.20 Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 *on the inland transport of dangerous goods* (Journal of Laws UE.L.2008.260.13 as amended)
- 15.1.21 The Act of 19 August 2011 on transport of dangerous goods (Journal of of laws of 2011 No. 227, item 1367 as amended).

15.1 Chemical safety assessment: none for the mixture.

Section 16. OTHER INFORMATION

Revisions' scope: Not applicable

Sources of key data on which the safety data sheet is based and the possibility of obtaining further information:

This safety data sheet has been prepared according to the principles set out in the REACH Regulation, using the information provided in the technical documentation on the basis of the available messages and written by specially appointed international organizations, and to the best of our knowledge.

Analysis of physical and chemical properties is performed on a regular basis at LOTOS SA Group

Literature:

[1] Legislation applicable in Poland concerning chemical substances and mixtures.

[2] Technical conditions.

[3] Safety Data Sheet / Hazardous Mixtures.

Abbreviations:

PBT - Persistent Toxic Bioaccumulable - persistent, bioaccumulative and toxic; vPvB - very persistent and bioaccumulative to a very large extent; Xi - irritant substances and mixtures; Xn - harmful substances and mixtures; N - substances and mixtures hazardous to the environment; R38 - Irritating to the eyes; R41 - risk of serious damage to eyes; R51 / 53 - toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment; R65 - harmful: may cause lung damage if swallowed; Skin Irrit. 2 - corrosion / irritation, hazard category 2; H315 - Irritating to the skin; Eye Dam. 1 - Serious eye damage / eye irritation, hazard category 1; H318 - Causes serious eye damage; Aquatic Chronic 2 - hazardous to the aquatic environment - chronic, category 2; H411 - toxic to aquatic life with long lasting effects; Asp. Tox. 1 - Aspiration hazard, hazard category 1; H304 - Swallowed and entering airways can cause death.

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STATEMENT

The information presented in this Data Sheet reflects our best knowledge at the date of the Sheet. We notify further users and distributors that we do not assume responsibility for the improper use of our product in a manner other than recommended by us. Measures relating to health and safety, and advice in matters of environmental protection enshrined in the Sheet may not be suitable for all individuals or situations. Users should assess the suitability of the product in a safe manner and in accordance with all applicable laws and regulations. The provisions set out in the Sheet shall in no way relieve the user from the regulations governing his activity.

This document was developed in the LOTOS SA Group

THE DATA SHEET SHOULD BE SEND DOWN THE SUPPLY CHAIN