

SAFETY DATA SHEET



In accordance with Commission Regulation (EU) 2015/830 of 28 May 2015
Amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on
the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Compilation Date: 30 June 2011
Revision Date: 4 March 2016

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

1.1 Product identifier

- Trade name : PULSTAR OIL
- Designation : Trimethylol propane tri-fatty acid ester containing additives
- Product code : 998-700-0 for 1L container 998-701-0 for 5L container
998-702-0 for 10L container 998-703-0 for 20L container

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

- Relevant identified uses : Industrial uses (SU3) ; Lubricants, greases, release products (PC24)
Industrial lubricant oil for hydraulic impulse tools
- Pulstar Oil should not be used for any other purpose than the identified use.

1.3 Details of the Supplier of the Safety Data Sheet

- Manufacturer : URYU SEISAKU, LTD.
1-2-11, Fukae-Minami, Higashinari, Osaka, 537-0002 Japan.
- Telephone : +81-6-6973-9415
- Fax : +81-6-6972-0346
- email (SDS questions) : uryuair@uryu.co.jp
- Supplier : Local supplier
Address of local supplier
- email : email address of local supplier

1.4 Emergency telephone number

- Emergency telephone : +81-6-6973-9415 Only available during the following office hours
- Opening hours : between 8.30 a.m. – 5.00 p.m. JST Mon. – Fri.
JST = UTC + 9 hours / + 8 hours during summer time
- Languages : Japanese or English
- Supplier : Local supplier
- Emergency telephone : Telephone number of local supplier (opening time)
- Language : (Local language)

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008
PULSTAR OIL is not classified as hazardous.

WARNING

Pulstar Oil should only be handled by specially trained personnel.

2.2 Label elements

- Label elements
The overall conclusion in accordance with Commission Regulation (EU) No 453/2010 of 20 May 2010 (REACH) is that there are no hazardous classifications associated with Pulstar Oil in respect to physical, health and environmental considerations.
- Hazard pictograms : Void
- Signal word : No signal word
- Hazard statements : No known significant effects or critical hazards.

• Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. – No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves / protective clothing / eye protection / face protection.



- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do, continue rinsing.

2.3 Other hazards

- **Safety hazards** : The product is not classified as flammable, but will burn.
 - **Health hazards** : The product is not expected to be a health hazard when used under normal conditions.
Prolonged or repeated exposure to skin may cause skin dryness or cracking.
 - **Environmental hazards:** The product is not classified as hazardous for the environment.
- Further information can be found in section 8.**

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

The product is a mixture. See 3.2 for details.

3.2 Mixtures

CAS No.	EC No.	% by Weight	Name	Classification according to Regulation (EC) No. 1278/2008
68002-79-9	268-093-2	≥ 90	Fatty acids, C14-C18 and C16-C18 unsatd., triesters with trimethylolpropane	Not classified as hazardous
860769-31-9	NA	> 9	Oxirane, 2-ethyl-homopolymer	Not classified as hazardous
51311-17-2	257-131-3	> 1	Carbon fluoride	Not classified as hazardous

Supplementary hazard information : Not applicable

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

- **General note**
The product is not expected to be a health hazard when used under normal condition.
- **Following inhalation**
 - Remove the victim to fresh air and keep him / her warm and at rest.
 - Loosen tight parts of clothes.
 - Give oxygen in the case of breathing disorders.
 - If not breathing: ensure that there is no obstruction to breathing and administer artificial respiration by trained personnel. If unconscious: place in the recovery position and get medical attention.
- **Following skin contact**
 - Immediately remove contaminated clothing and wash affected skin with soap and water.
 - Do not use solvents or thinners as skin cleaning agents.
- **Following eye contact**
 - Check for and remove any contact lenses.
 - Flush immediately with plenty of water while lifting the upper and lower eyelids until irritation subsides.
 - Continue to rinse for at least 15 minutes and get medical attention.

Note: Do not use a stream of water which is too strong, it may damage the cornea.
- **Following ingestion**
 - Immediately wash out mouth with water.
 - If swallowed, get prompt medical attention.
 - Do not induce vomiting – increased aspiration risk.
 - When spontaneous vomiting occurs, keep the victim leaning forwards with his/her face directed to the ground.
 - If the victim is conscious, let him / her drink approx. 200mL of water.
- **Self-protection of the first aider**
 - No action shall be taken involving any personal risk or without suitable training.
 - A person providing first aid in the area where vapours / mists concentration is unknown should be equipped with the appropriate respiratory protection.

4.2 Most important symptoms and effects, both acute and delayed

- No known significant effects or critical hazards are observed.

4.3 Indication of any medical attention and special treatment needed

- Do not induce vomiting and do not administer anything orally to an unconscious person.
- Show the safety data sheet to the medical staff.
- A person providing first aid in the area where vapours / mists concentration is unknown should be equipped with the appropriate respiratory protection.
- **Note for doctors**
Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

- **Suitable extinguishing media** : Foam, dry powders, carbon dioxide (CO₂), sand
 - **Unsuitable extinguishing media** : Water jet – it may cause splattering and spread the fire.
- Note** : Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Special hazards arising from the substance or mixture

- Hazardous gases produced in fire include carbon monoxide.
- Avoid smoke inhalation during firefighting.

5.3 Advice for firefighters

- **Fire fighting procedures**
 - Clear fire area of all non-emergency personnel.
 - Remove combustibles from fire.
 - Use powder type / foam type extinguisher(s) to extinguish an early fire.
 - Air insulation covered by sand / foam will be effective for a large fire.
- Note:** Extinguish a fire from the windward side of the fire.
- **Protective equipment** :
 - Firefighters should wear self-contained positive pressure breathing apparatus and full turnout gear.
 - **Advice for firefighters**
 - : Observe normal firefighting procedures.
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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Use protective equipments, see section 8.
- Limit the access of bystanders to the endangered area until proper cleaning operations are finished.
- In the case of great leakage, isolate the endangered area and prepare fire extinguishers.
- Avoid contact with skin, eyes and clothing.
- Do not inhale vapours or mists.
- If release occurred in a closed area, ensure adequate ventilation.
- Remove ignition sources, extinguish open fire and do not smoke.
- Spilt oils can make surfaces slippery.

6.2 Environmental precautions

- If possible and safe, stop or limit product release.
- Limit spreading of the great leakages by embanking the area to avoid environmental contamination.
- Prevent from spreading or entering drains, ditches, waterways, rivers or soil by using sand, earth or other appropriate barriers.

6.3 Methods and material for containment and cleaning up

- Cover up small spillage with non-flammable absorbent materials such as sand, earth, sawdust or rag and collect in an appropriate, closed, labelled waste bin.
- Finish cleaning up by flushing the contaminated surface with water.
- When collecting, use shovels which do not produce sparks.

6.4 Reference to other sections

- See section 13 for information on disposal.
 - Observe all relevant local and international regulations.
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SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Unpack the material at application site to avoid unnecessary handling of the product.
- Keep work areas clean.
- Handle container with care.
- Keep away from heat or strong oxidising agents.
- Never overheat or it will produce vapours or mists.
- Use good ventilation.
- Pay attention to leakage and spillage.
- Cleanse skin thoroughly after contact, before breaks and meals and at the end of work period.

7.2 Conditions for safe storage, including any incompatibilities

- Keep container closed when not in use.
 - Store away from strong oxidising agents and combustible materials.
 - Do not store near ignition sources (heat, sparks, flame, hot surfaces or strong oxidants).
 - Keep container tightly closed (P233) in a dry, cool and well-ventilated place and protect from direct sunlight.
- Note:** The additives precipitate during storage.
Shake the container vigorously to mix the additives into the base oil before use.
- Safe storage temperature : 0°C~40°C
 - Container : P234 Keep only in original container. Keep container properly labelled.

7.3 Specific end use (s)

- Recommendations : Not applicable
 - Industrial sector specific solutions : Not applicable
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SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

- Occupational exposure limit (OEL) : Not established
- Maximum permission concentration : Not established

8.2 Exposure controls

• Appropriate engineering controls

- Good general ventilation should be sufficient to control airborne levels.
- Ensure that eyewash stations and safety showers are close to the work area.

• Hygiene measures

- Wash hands at the end of each work shift and before eating, smoking, using lavatory.
- Use appropriate skin cream to prevent drying of skin.
- When using, do not eat, drink or smoke.
- Do not smoke in work area.

• Personal protective equipments

- Eye / face protection : Tightly fitted goggles or safety glasses with side shields
- Hand protection : Impermeable (chemical-, oil-resistant) gloves
- Skin protection : Impermeable boots, long-sleeved clothing etc.

• Environmental exposure controls

Minimise release to the environment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Dark grey
- Odour : Mild petroleum
- Odour threshold : Not established
- pH : Not measurable
- Pour point : Approx. -5°C (23°F)
- Boiling point / range : No data
- Flash point : 264°C (507.2°F) (Cleveland open cup)
- Evaporation rate : Not applicable
- Flammability : Not applicable
- Vapour pressure : Not applicable
- Vapour density : Not applicable
- Relative density : Approximately 0.93g/cm³ at 15°C (59°F)
- Solubility : Insoluble in water / Soluble in solvents such as ether, chloroform and acetone
- Partition coefficient (n-octanol/water) : No data
- Auto-ignition temperature : No data
- Decomposition temperature : No data
- Kinematic viscosity : Approx. 42 mm²/s at 40°C (104°F)
- Explosive properties : Not applicable
- Oxidising properties : Not applicable

9.2 Other information

No additional information

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

If mixed with alkaline substance and heated, it will generate soap.

10.2 Chemical stability

Stable under recommended storage and handling conditions, see section 7.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Extremes of temperature and direct sunlight

10.5 Incompatible materials

Strong oxidising agents

10.6 Hazardous decomposition products

None

SECTION 11. TOXICOLOGICAL INFORMATION

Information given are based on data on the main component, trimethylolpropane trioleate.

11.1 Information on toxicological effect

Acute toxicity

Expected to be of low toxicity.

- LD50 oral (rat) : > 2000mg / kg
- LD50 oral (mouse) : No data
- LD50 oral (guinea pig) : No data
- LD50 oral (rabbit) : No data
- Other information on LD50 oral : The dose limit (56.3mL/kg) for a mouse did not kill any test mice.

Irritation / Sensitisation

Expected to be slightly irritating.

- LC50 dermal : No data – Expected to be slightly irritating.
Prolonged or repeated skin contact may irritate skin.
- Patch test (24h) (visual check) : Negative
- Microscope check : Negative
- Eye irritation : May slightly irritate eyes as would any foreign material.
- Other information on irritation : Expected to be of low irritation to skin and respiratory system, but prolonged or repeated skin contact may irritate skin due to degrease.
- LC50 inhalation : No data Not expected to pose an inhalation hazard under conditions of foreseeable use.
- Corrosivity : No data
- Carcinogenicity : Not classified under IARC.
- Genotoxicity : No data
- Teratology : No data

SECTION 12. ECOLOGICAL INFORMATION

Information given is based on data on the main component, trimethylolpropane trioleate.

12.1 Toxicity

Trimethylol propane tri-fatty acid ester containing additives (base oil)

- Toxicity to fish LC50 (96h) : 5500 mg/L (zebra fish)
- Toxicity to daphnia EC50 (48h) : EC0 (24h) = 1000mg/L (daphnia magna)
- Other information : EC0 (30min.) = 1000mg/L (Pseudomonas putida)

12.2 Persistence and degradability

- BOD = 72% (anaerobic sludge 50mg/L, 35 days)
- COD = 78% (aerobic sludge 100mg/L, 28 days)

12.3 Bio accumulative potential

No data – Not expected to bioaccumulate in aquatic organisms.

log P = approx. 25

Log P of approx. 7 or over hardly solve in water and is expected to accumulate in aquatic organisms.

12.4 Mobility on soil

Liquid under most environmental conditions. Floats on water.

12.5 Results of PBT and vPvB assessment

Not PBT and not vPvB

12.6 Other adverse effects

: No known significant effects or critical hazards.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The information in this section contains generic advice and guidance. The list of relevant Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

- **Recommendations for product** : No special considerations required
- **Recommendations for container** : Empty packaging should be completely drained.
- **LoW code**
 - Pulstar Oil : 13 02 05 – Mineral-based non-chlorinated lubricating oils
 - Containers : 15 01 02 – Plastic packaging for 1L-container, 5L-container and 10L-container
15 01 04 – Metallic packaging for 20L-container
- **Hazardous waste**
 - To present knowledge of the manufacturer, this mixture is not regarded as hazardous waste as defined by Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste.
 - Sewage disposal shall be discouraged.
 - Final decisions on the appropriate waste management method, in line with regional, national and European legislation, and possible adaption to local conditions, remains the responsibility of the waste treatment operator.

SECTION 14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID	Not regulated
AND/ADNR	Not regulated
IMDG	Not regulated
IATA	Not regulated

14.2 UN proper shipping name

ADR/RID	None
AND/ADNR	None
IMDG	None
IATA	None

14.3 Transport hazards class(es)

ADR/RID	Not regulated
AND/ADNR	Not regulated
IMDG	Not regulated
IATA	Not regulated

14.4 Packing group

ADR/RID	Not regulated
AND/ADNR	Not regulated
IMDG	Not regulated
IATA	Not regulated

14.5 Environmental hazards

ADR/RID	Not regulated
AND/ADNR	Not regulated
IMDG	Not regulated
IATA	Not regulated

14.6 Special precautions of use

- No fire / No smoking
- This mixture is not classified as flammable, but will burn, see sections 2 & 9.
- Secure container firmly to prevent damage due to drop / shock etc.
- Ensure that no rust or corrosion on container is evident, and no leakage before transport.



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 substances or mixture

This mixture is not classified according to Regulation (EC) No 1272/2008 of the European Parliament and of the Council 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.

15.2 Chemical safety assessment

- **VOC contents** : 0%
- **Japan Sewerage Act** : Mineral oil sewerage discharge regulation (5mg/L)
- **Exposure scenarios** : An extension of the SDS with exposure scenarios is not necessary because the mixture is not classified as hazardous.

SECTION 16. OTHER INFORMATION

Abbreviations and acronyms in the safety data sheet

JST	: Japanese Standard Time (=UTC +9)
UTC	: Universal Time Coordinated
pH	: a measure of the acidity or basicity of an aqueous solution
LD50	: Lethal Dose to 50% of a test population (Median lethal dose)
LC50	: Lethal Concentration to 50% of a test population
EC _x	: Concentration at which x% inhibition of growth or growth rate is observed
IARC	: International Agency for Research on Cancer
BOD	: Biochemical Oxygen Demand
COD	: Chemical Oxygen Demand
Koc	: Organic carbon absorption (coefficient)
log P	: Partition coefficient
LoW	: List of Wastes
PBT	: Persistent, Bioaccumulative and Toxic
vPvB	: Very Persistent and Very Accumulative
ADR	: Agreement of Dangerous Goods by Road
RID	: International carriage of Dangerous Goods by Rail
ADNR	: Regulation for the Carriage of Dangerous Substances on the Rhine
IMDG	: International Maritime Dangerous Goods Code
IATA	: International Air Transport
VOC	: Volatile Organic Compounds

• Source of information

Information contained herewith is based on the information from raw material deliverers and URYU measurement test data.

• Update Records

2.1	29 March, 2013	: Section 2. Hazards Identification - Label Elements
3.1	4 March, 2016	: Updated according to EU Commission Regulation No. 453/2010 Annex II (CLP) Section 3. Composition / Information on Ingredients

DISCLAIMER

Information provided herein is considered to be accurate as of the date specified above.

No warranty is made as to the accuracy or completeness of the data and information provided in this safety data sheet. Information provided herein serves only as guidelines for safe work, use, storage and waste management.

It cannot be considered as a warranty or quality certificate.

This information applies only to specific material designated and may not be suitable for such material used in combination with any other materials or in any other manner not described in this document.

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— End of SDS —