

MATERIAL SAFETY DATA SHEET

Health: 0
Flammability: 1
Physical hazard: 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Thiokol LP-33
Version #	2.0
Revision date	14-Sep-2011
Company information	LP North America 6614 Gant Road Houston, Texas 77066
Emergency	Chemtrec (800) 424-9300 International (703) 527-3887
General information	Manufacturer: Toray Fine Chemicals Co., Ltd. 1-8-1, Mihama Urayasu, Chiba 279-8555, JAPAN +81-47-350-6151

2. COMPOSITION / INFORMATION ON INGREDIENTS

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

3. HAZARDS IDENTIFICATION

Emergency overview Health injuries are not known or expected under normal use.

Potential short term health effects

Eyes	Contact with eyes may cause irritation.
Skin	Not expected to be a primary skin irritant.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Do not ingest. May be harmful if swallowed.

4. FIRST AID MEASURES

First aid

Eye contact	Flush eyes with water as a precaution. If irritation persists get medical attention.
Skin contact	Rinse with water. Get medical attention if irritation develops or persists.
Inhalation	Call a physician if symptoms develop or persist. If breathing is difficult, give oxygen.
Ingestion	Have victim rinse mouth thoroughly with water. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If ingestion of a large amount does occur, seek medical attention.

General advice If you feel unwell, seek medical advice (show the label where possible).

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Small Fires: Dry chemical, CO2, water spray or regular foam.

Large Fires: Water spray, fog or regular foam.

Fire fighting equipment/instructions Move containers from fire area if you can do it without risk. Do not scatter spilled material with high pressure water streams. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. ALWAYS stay away from tanks engulfed in flame. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.

Flash point 392 °F (200 °C) Pensky-Martens Closed Cup

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures Keep unnecessary personnel away.

Containment procedures Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for cleaning up Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling	Do not handle or store near an open flame, heat or other sources of ignition. Handle and open container with care. Surfaces may become slippery after spillage.
Storage	Keep in a cool, well-ventilated place. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Use care in handling/storage. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. No personal respiratory protective equipment normally required.
Eye protection	Avoid contact with eyes.
Skin and body protection	Wear suitable protective clothing.
General	Wear suitable protective equipment.
Hygiene measures	When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL & CHEMICAL PROPERTIES

Density	10.5829 lb/gal
Form	Liquid.
Specific gravity	1.27

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions.
Conditions to avoid	Direct sources of heat.
Incompatibility	None known.

11. TOXICOLOGICAL INFORMATION

Further information	This product has no known adverse effect on human health.
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12. ECOLOGICAL INFORMATION

Ecotoxicity	This material is not expected to be harmful to aquatic life.
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13. DISPOSAL CONSIDERATIONS

Disposal instructions	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
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14. TRANSPORTATION INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

International Air Transport Association (IATA) Requirements

Not regulated as dangerous goods.

International Maritime Dangerous Goods (IMDG) Code Requirements

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List. CERCLA/SARA Hazardous Substances - Not applicable.
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Occupational safety and health administration (OSHA)

29 CFR 1910.1200 No
hazardous chemical

CERCLA (superfund) reportable quantity

None

Superfund amendments and reauthorization act of 1986 (SARA)

Section 302 extremely No
hazardous substance

Section 311 hazardous No
chemical

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

NFPA ratings

Health: 0
Flammability: 1
Instability: 0

16. OTHER INFORMATION

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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Issue date

14-Sep-2011