

# Material Safety Data Sheet

2049

## 1. Product and company identification

**Common name** : 2049  
**Material uses** : Not available.  
**Supplier/Manufacturer** : LIQUI MOLY GMBH  
Jerg-Wieland-Strasse 4  
D-89081 Ulm-Lehr  
Tel : +49-0731-1420-0  
Fax : +49-0731-1420-71  
**In case of emergency** : +49-0731-1420-0

## 2. Hazards identification

**Physical state** : Liquid.  
**Odor** : Characteristic.  
**Color** : Brown.  
**Hazard status** : This material is classified as not hazardous under OSHA regulations.  
**Emergency overview** : No specific hazard.  
USE WITH CARE.  
Follow good industrial hygiene practice.

### Potential acute health effects

**Eyes** : No known significant effects or critical hazards.  
**Skin** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

**Potential chronic health effects** : Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.  
Mutagenic effects: Not available.  
Teratogenic effects: Not available.

**Medical conditions aggravated by over-exposure** : None known.

See toxicological information (section 11)

## 3. Composition/information on ingredients

### United States

Name	CAS number	%
No hazardous ingredient		

## 4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

## 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Products of combustion** : Decomposition products may include the following materials:  
carbon oxides  
sulfur oxides  
phosphorus oxides  
metal oxide/oxides
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.  
In a fire or if heated, a pressure increase will occur and the container may burst.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Eyes** : Safety glasses.
- Skin** : Lab coat.
- Respiratory** : A respirator is not needed under normal and intended conditions of use.
- Hands** : Disposable vinyl gloves.



- HMIS Code/Personal protective equipment** : A
- Personal protection in case of a large spill** : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: 240°C (464°F) [Pensky-Martens.]
- Color** : Brown.
- Odor** : Characteristic.
- Melting/freezing point** : -50°C (-58°F)
- Relative density** : 0.86
- Viscosity** : Kinematic: 0.139 cm<sup>2</sup>/s (13.9 cSt)  
Kinematic (40°C): 0.78 cm<sup>2</sup>/s (78 cSt)

**Solubility** : Partially soluble in the following materials: n-octanol.  
Insoluble in the following materials: cold water and hot water.

## 10 . Stability and reactivity

**Stability and reactivity** : The product is stable.

**Incompatibility with various substances** : Reactive or incompatible with the following materials: oxidizing materials.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Hazardous polymerization** : Will not occur.

**Conditions of reactivity** : Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.  
Non-flammable in the presence of the following materials or conditions: heat.

## 11 . Toxicological information

### Acute Effects

**Eyes** : No known significant effects or critical hazards.

**Skin** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Potential chronic health effects** : Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.  
Mutagenic effects: Not available.  
Teratogenic effects: Not available.

## 12 . Ecological information

**Environmental precautions** : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Products of degradation** : Products of degradation: carbon oxides (CO, CO<sub>2</sub>) and water, sulfur oxides (SO<sub>2</sub>, SO<sub>3</sub> etc.), phosphates. Some metallic oxides.

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14 . Transport information

### Regulatory information

UN/ IMDG/ IATA DOT : Not regulated.

## 15 . Regulatory information

### United States

**HCS Classification** : Not regulated.

**U.S. Federal regulations** : **United States inventory (TSCA 8b)**: Not determined.All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**: No products were found.

**Clean Water Act (CWA) 307**: No products were found.

**Clean Water Act (CWA) 311**: No products were found.

**Clean Air Act (CAA) 112 accidental release prevention**: No products were found.

**Clean Air Act (CAA) 112 regulated flammable substances**: No products were found.

**Clean Air Act (CAA) 112 regulated toxic substances**: No products were found.

### State regulations

: **Connecticut Carcinogen Reporting**: None of the components are listed.  
**Connecticut Hazardous Material Survey**: None of the components are listed.  
**Florida substances**: None of the components are listed.  
**Illinois Chemical Safety Act**: None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act**: None of the components are listed.

**Louisiana Reporting**: None of the components are listed.

**Louisiana Spill**: None of the components are listed.

**Massachusetts Spill**: None of the components are listed.

**Massachusetts Substances**: None of the components are listed.

**Michigan Critical Material**: None of the components are listed.

**Minnesota Hazardous Substances**: None of the components are listed.

**New Jersey Hazardous Substances**: None of the components are listed.

**New Jersey Spill**: None of the components are listed.

**New Jersey Toxic Catastrophe Prevention Act**: None of the components are listed.

**New York Acutely Hazardous Substances**: None of the components are listed.

**New York Toxic Chemical Release Reporting**: None of the components are listed.

**Pennsylvania RTK Hazardous Substances**: None of the components are listed.

**Rhode Island Hazardous Substances**: None of the components are listed.

**California prop. 65**: No products were found.

### International lists

: This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

## 16 . Other information

**Label requirements (U.S.A.)** : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

**Hazardous Material Information System (U.S.A.)** :

HMIS RATING	
Health	0
Fire hazard	1
Physical Hazard	0
Personal protection	A

### HAZARD RATINGS

4- Extreme  
3- Serious  
2- Moderate  
1- Slight  
0- Minimal

See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :



Flammability

Reactivity

Special

**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

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**Version** : 1

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.