



**ULVAC Technologies, Inc.**

**ULVAC R-4**

**Safety Data Sheet**

Revision Date June 2015

1. Product and Company Identification

PRODUCT NAME: **ULVAC R-4**  
MATERIAL USES: Lubricating Oil  
COMPANY: ULVAC TECHNOLOGIES INC.  
401 GRIFFIN BROOK DR.  
METHUEN, MA. 01844  
978-686-7550 X230  
VALIDATION DATE: 6/1/2015  
For Chemical Emergency Call Chemtrec 800-424-9300

2. Hazards Identification

OSHA/HCS Status: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**GHS Classification:**

Not a dangerous substance according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**GHS-Labeling :**

Not a dangerous substance according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

3. Composition/information on ingredients

This material is defined as a substance.

**No Hazardous Substance(s) or Complex Substance(s) required for disclosure.**

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.  
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.  
Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product: May be combustible at high temperature.

Extinguishing media

Suitable: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.  
Not Suitable; None known

Hazardous thermal decomposition products: No specific data

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

Small spill: Stop leak if without risk. Move containers from spill area. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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 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 breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

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.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

#### Personal protection

Eyes: Safety glasses

Skin: Lab coat

Respiratory: A respirator is not needed under normal and intended conditions of use

Hands: Natural rubber (latex)

#### Personal protective equipment (pictograms)



HMIS Code/Personal protective equipment: B

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to

ensure they comply with the requirements of environmental protection legislation. In some cases fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

### GENERAL INFORMATION

**Physical State:** Liquid  
**Form:** Clear  
**Color:** straw yellow  
**Odor:** Mild  
**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 25 °C):** 0.87 g/ml  
**Flammability (Solid, Gas):** N/A  
**Flash Point [Method]:** 213°C (415°F) [ASTM D-93]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** N/D  
**Boiling Point / Range:** 112°C @ .01 torr  
**Decomposition Temperature:** N/D  
**Vapor Density (Air = 1):** N/D  
**Vapor Pressure:** <.0001 Torr @25°C  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/A  
**Log Pow (n-Octanol/Water Partition Coefficient):** N/D  
**Solubility in Water:** Negligible  
**Viscosity:** 52 cSt (52 mm<sup>2</sup>/sec) at 40 °C | 8.1 cSt (8.1 mm<sup>2</sup>/sec) at 100°C  
**Oxidizing Properties:** See Hazards Identification Section.

### OTHER INFORMATION

**Freezing Point:** N/D  
**Melting Point:** N/D  
**Pour Point:** < -15°C (5°F)

## 10. Stability and reactivity

**Stability:** The product is stable  
**Hazardous polymerization:** Under normal conditions of storage and use, hazardous polymerization will not occur.  
**Conditions to avoid:** No specific data  
**Materials to avoid:** 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.

## 11. Toxicological information

**Sensitizer :** No data available to indicate product or components may be a skin sensitizer.  
**Mutagenicity:** No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic  
**Carcinogenicity:** Not expected to cause cancer. This product meets the IP-346 criteria of <3% PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.  
**Reproductive and Developmental Toxicity:**  
No data available to indicate product or any components present at greater than 0.1% may cause birth defects.  
**Specific target organ toxicity: (single exposure)**  
Non-hazardous under Specific Target Organ Systemic Toxicity Single Exposure category

## Specific target organ toxicity (repeated exposure)

Non-hazardous under Specific Target Organ Systemic Toxicity Repeated category

### 12. Ecological information

**Acute Aquatic ecotoxicity** : Non-hazardous under Aquatic Acute Environment category.

**Chronic Aquatic ecotoxicity** : Non-hazardous under Aquatic Chronic Environment category.

**Persistence and degradability** : Biodegrades slowly.

**Bioaccumulative potential** : Bioconcentration may occur.

**Mobility in soil** : This material is expected to have essentially no mobility in soil.

**Results of PBT and vPvB assessment** : Not determined

**Other adverse effects** : No data available.

### 13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. 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.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to section 7: Handling and storage and section 8: Exposure controls/personal protection for additional handling information and protection of employees.

### 14. Transport information

AERG: Not applicable

Regulatory information

DOT/IMDG/IATA: Not regulated

### 15. Regulatory information

United States

HCS Classification; Not regulated

U.S. Federal regulations: United States Inventory (TSCA 8b): All components are listed or exempted.  
SARA 302/304/311/312 extremely hazardous substance: 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 substance: 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.  
 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.  
 No products were found

California Prop. 65:  
 International regulations  
 International lists:

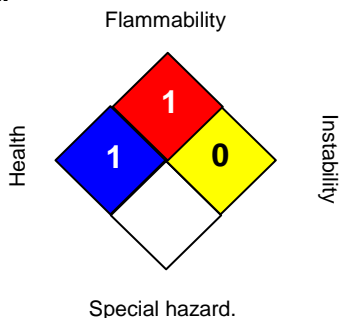
This product, (and it ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16. Other information

N/D = Not determined, N/A = Not applicable

The customer is responsible for determining the PPE code for this material.

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 =Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

Revision Date : 06/01/2015

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