

# MATERIAL SAFETY DATA SHEET

## TIMKEN MULTI-USE 2 GREASE

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>TRADE NAME</b>	TIMKEN MULTI-USE 2 GREASE
<b>PART No.</b>	GR237
<b>PRODUCT USE</b>	Lubricating Grease
<b>SUPPLIER</b>	The Timken Corporation 1835 Dueber Ave. P.O. Box 6930 Canton, OH 44706-0930 USA Tel: (330) 438-3000
<b>CONTACT PERSON</b>	David Pierman

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	64742-52-5	80-100 %
*OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	7620-77-1	5-10 %
*ZINC, BIS(DIPENTYLCARBAMODITHIOATO-S,S"), (T-4) -	15337-18-5	0.1-1 %

\* This chemical(s) is hazardous according to OSHA/WHIMIS criteria

**COMPOSITION COMMENTS** Refer to section eight for exposure limits on ingredients.  
Chemical ingredients not regulated by OSHA, SARA, state or federal agencies are treated confidentially.

### 3. HAZARDS IDENTIFICATION

<b>EMERGENCY OVERVIEW</b>	Not regarded as a health hazard under current legislation.
<b>INHALATION</b>	Inhalation hazard at room temperature is unlikely due to the low volatility of this product. Heating can generate vapors that may cause respiratory irritation, nausea and headaches.
<b>INGESTION</b>	May cause stomach pain or vomiting.
<b>SKIN</b>	Prolonged or repeated contact leads to drying of skin.
<b>EYES</b>	May be slightly irritating to eyes.
<b>CARCINOGENICITY</b>	IARC: Not listed as a Group 1, 2A, or 2B agent. OSHA: Not regulated. NTP: Not listed.
<b>TERATOGENICITY</b>	No known information.
<b>MUTAGENICITY</b>	No known information.

**HEALTH WARNINGS**

**INHALATION.** Heating can generate vapors that may cause respiratory irritation, nausea and headaches. Inhalation hazard at room temperature is unlikely due to the low volatility of this product. **SKIN CONTACT.** Repeated or prolonged contact can result in drying of the skin. **EYE CONTACT.** Slightly irritating. **INGESTION.** Can cause stomach ache and vomiting.

**ROUTE OF ENTRY**

Inhalation. Skin and/or eye contact. Ingestion.

**4. FIRST AID MEASURES****INHALATION**

Move the exposed person to fresh air at once. For breathing difficulties oxygen may be necessary. Get medical attention if any discomfort continues.

**EYES**

Rinse with water. Contact physician if discomfort continues.

**SKIN**

Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

**INJECTION INJURY WARNING:** If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

**INGESTION**

**DO NOT INDUCE VOMITING!** Get medical attention immediately!

**5. FIRE FIGHTING MEASURES****FLASH POINT (°C)**

168 Cd OC (Cleveland open cup).

**FLAMMABILITY LIMIT - LOWER(%)**

N/D

**FLAMMABILITY LIMIT - UPPER(%)**

N/D

**EXTINGUISHING MEDIA**

Water spray, fog or mist. Foam. Carbon dioxide (CO<sub>2</sub>). Dry chemicals, sand, dolomite etc.

**SPECIAL FIRE FIGHTING PROCEDURES**

Use water to keep fire exposed containers cool and disperse vapors. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

Volume and pressure increases strongly when heated. Risk of container explosion in fire.

**HAZARDOUS COMBUSTION PRODUCTS**

Acrid smoke/fumes. Oxides of: Carbon.

**PROTECTIVE MEASURES IN CASE OF FIRE**

Self-contained breathing equipment and chemical resistant clothing recommended.

**6. ACCIDENTAL RELEASE MEASURES**

<b>PERSONAL PRECAUTIONS</b>	Minimize skin contact.
<b>PRECAUTIONS TO PROTECT THE ENVIRONMENT</b>	Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.
<b>SPILL CLEAN-UP PROCEDURES</b>	Provide good ventilation. Use appropriate protective clothing. Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Do not let washing down water contaminate ponds or waterways. Rinse area with water.

## 7. HANDLING AND STORAGE

<b>HANDLING PRECAUTIONS</b>	Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Containers should be kept tightly closed. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.
<b>STORAGE PRECAUTIONS</b>	Keep away from heat, sparks and open flame. Store separated from: Acids. Oxidizing materials.
<b>STORAGE CRITERIA</b>	Chemical storage.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
DISTILLATES, PETROLEUM, HYDROTREATED	OSHA			5 mg/m3 <sup>**</sup> (1)	
HEAVY NAPHTHENIC	ACGIH			5 mg/m3 <sup>**</sup> (1)	10 mg/m3 <sup>**</sup> (1)

### INGREDIENT COMMENTS

<sup>\*\*</sup>(1) For respirable oil mist.

### PROTECTIVE EQUIPMENT



<b>ENGINEERING CONTROLS</b>	Use engineering controls to reduce air contamination to permissible exposure level.
<b>VENTILATION</b>	No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.
<b>RESPIRATORS</b>	No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.
<b>PROTECTIVE GLOVES</b>	Chemical resistant gloves required for prolonged or repeated contact. Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC.
<b>EYE PROTECTION</b>	Use eye protection.
<b>PROTECTIVE CLOTHING</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.

**HYGIENIC WORK PRACTICES**

Wash at the end of each work shift and before eating, smoking and using the toilet.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE/PHYSICAL STATE</b>	Grease.		
<b>COLOR</b>	Amber.		
<b>ODOR</b>	Mild (or faint).		
<b>SOLUBILITY DESCRIPTION</b>	Insoluble in water.		
<b>DENSITY</b>	0.90	<b>Temperature (°C)</b>	15.6 (60°F)
<b>VAPOR DENSITY (air=1)</b>	> 5		
<b>VAPOR PRESSURE</b>	< 0.01 mmHg	<b>Temperature (°C)</b>	20 (68°F)
<b>EVAPORATION RATE</b>	< 1	<b>Reference</b>	BuAc=1
<b>pH-VALUE, CONC. SOLUTION</b>	N/A		

**10. STABILITY AND REACTIVITY**

<b>STABILITY</b>	Normally stable.
<b>CONDITIONS TO AVOID</b>	Avoid contact with acids and oxidizing substances.
<b>HAZARDOUS POLYMERIZATION</b>	Will not polymerize.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Oxides of: Carbon.

**11. TOXICOLOGICAL INFORMATION**

<b>TOXICOLOGICAL INFORMATION</b>	No experimental toxicological data on the preparation as such is available.
<b>COMPONENT</b>	<b>DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC</b>
<b>TOXIC DOSE - LD 50</b>	> 5000 mg/kg (oral rat)
<b>TOXIC DOSE - LD 50 SKIN</b>	> 2000 mg/kg (skn rbt)
<b>TOXIC CONC. - LC 50</b>	N/A.
<b>CARCINOGENICITY</b>	The petroleum base oil contained in this product has been highly refined to remove aromatics and improve performance characteristics. The base oil is not listed as a carcinogen by NTP, IARC, or OSHA.

**12. ECOLOGICAL INFORMATION**

<b>ECOLOGICAL INFORMATION</b>	No data on possible environmental effects have been found.
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### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS** Spilled material, unused contents and empty containers must be disposed of in accordance with local, state and federal regulations.

### 14. TRANSPORT INFORMATION

**DOT HAZARD CLASS** Not regulated.

**IDENTIFICATION No.** N/A

**TDGR CLASS** Not Regulated. Non réglementé.

**SEA TRANSPORT NOTES** Not regulated per IMDG.

**AIR TRANSPORT NOTES** Not regulated per IATA.

### 15. REGULATORY INFORMATION

US FEDERAL REGULATIONS: COMPONENT	SARA 302	CERCLA	SARA 313
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	No	No	No
ZINC, BIS(DIPENTYLCARBAMODITHIOATO-S,S"), (T-4) -	No	***	N982 - Zn
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	No	No	No

\*\*\* Indicates that no RQ is assigned to this generic or broad class, although the class is a CERCLA hazardous substance. See 50 Federal Register 13456 (April 4, 1985). Values in Section 313 column represent Category Codes for reporting under Section 313.

SARA HAZARD CATEGORIES	None	CA	FL	MA	MN	NJ	PA	RI
US STATE REGULATIONS: BY COMPONENT								
ZINC, BIS(DIPENTYLCARBAMODITHIOATO-S,S"), (T-4) -							EH	
INVENTORIES: COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
DISTILLATES, PETROLEUM, HYDROTREATED HEAVY NAPHTHENIC	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
OCTADECANOIC ACID, 12-HYDROXY-, MONOLITHIUM SALT	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
ZINC, BIS(DIPENTYLCARBAMODITHIOATO-S,S"), (T-4) -	NPRI	Yes	EINECS	Yes	Yes	Yes	Yes	Yes

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**16. OTHER INFORMATION**

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<b>NFPA-HMIS: HEALTH</b>	Irritation, minor residual injury (1) - HMIS/NFPA
<b>NFPA-HMIS: FLAMMABILITY</b>	Burns only if pre-heated (1) - HMIS/NFPA
<b>NFPA-HMIS: REACTIVITY</b>	Normally Stable (0) - HMIS/NFPA
<b>HMIS PERSONAL PROTECTION INDEX</b>	B - Safety Eyewear and Gloves
<b>PREPARED BY</b>	James W. Hermann
<b>DATE</b>	2005-04-08
<b>PRINTING DATE:</b>	2005-04-08
<b>DISCLAIMER</b>	While the information and recommendations set forth herein are believed to be accurate as of the date thereof, The Timken Corporation makes no warranty with respect thereto and disclaims all liability from reliance therein.