

MATERIAL SAFETY DATA SHEET

TIMKEN MILL GREASE (NLGI GRADES 1, 1.5, 2)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME TIMKEN MILL GREASE

PRODUCT NO. GR180 NLGI GRADE 1

The Timken Corporation
1835 Dueber Ave.
P.O. Box 6930
Canton, OH 44706-0930

EMERGENCY CONTACT INFOTRAC

2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY PARAFFINIC	64741-88-4	10-40 %
RESIDUAL OILS, PETROLEUM. HYDROTREATED	64742-57-0	10-30 %

COMPOSITION COMMENTS

Refer to section eight for exposure limits on ingredients.
Chemical ingredients not regulated by OSHA or SARA are treated confidentially.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

ACUTE EFFECTS

HEALTH HAZARDS, GENERAL Exposure to vapors generated at high temperatures may cause respiratory irritation.

CHRONIC EFFECTS

SENSITIZATION No known information.

CARCINOGENICITY IARC: Not listed. OSHA: Not regulated. NTP: Not listed.

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. Irritating. INGESTION. Can cause stomach ache and vomiting. Main hazard, if ingested, is aspiration into the lungs and subsequent pneumonitis.

OTHER INFORMATION

ROUTE OF ENTRY Inhalation. Skin and/or eye contact. Ingestion.
MEDICAL SYMPTOMS MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not determined

4. FIRST AID MEASURES

INHALATION Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor of hot product, immediately remove from source of exposure. 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 the eye with water immediately. Continue to rinse for at least 15 minutes. Contact physician if discomfort continues.

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

INGESTION DO NOT INDUCE VOMITING! Get medical attention immediately!

5. FIRE FIGHTING MEASURES

FLASH POINT (°C) 246 Cd OC (Cleveland open cup).

FLAMMABILITY LIMIT - LOWER(%) N/D

FLAMMABILITY LIMIT - UPPER(%) N/D

EXTINGUISHING MEDIA Use: Carbon dioxide (CO₂). Dry chemicals, sand, dolomite etc. Alcohol resistant foam. Water spray, fog or mist.

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 Pressure will increase in over heated, closed containers.

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

PERSONAL PRECAUTIONS Minimize skin contact.

PRECAUTIONS TO PROTECT THE ENVIRONMENT

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.

SPILL CLEAN-UP PROCEDURES

Keep all sources of ignition and hot metal surfaces away from spill. Avoid contact with eyes or skin. Place leaking containers in well ventilated area. If fire potential exists, blanket spill with foam or use water spray to disperse vapors. Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean up spill, flush area sparingly with water or use absorbant material. Avoid discharge to natural water ways.

7. HANDLING AND STORAGE

HANDLING PRECAUTIONS

Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Do not reuse container. Keep lid closed when not in use. Do not store or mix with strong oxidizers. Avoid spilling, skin and eye contact. Eye wash and emergency shower must be available at the work place.

STORAGE PRECAUTIONS

Store separate from strong acids and oxidizers. Keep away from heat, sparks and open flame.

STORAGE CRITERIA

Chemical storage.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY PARAFFINIC	OSHA	5 mg/m3	N/E		
	ACGIH	5 mg/m3	10 mg/m3		
RESIDUAL OILS, PETROLEUM, HYDROTREATED	OSHA	5 mg/m3	N/E		
	ACGIH	5 mg/m3	10 mg/m3		

PROTECTIVE EQUIPMENT



ENGINEERING CONTROLS

Use engineering controls to reduce air contamination to permissible exposure level.

VENTILATION

No specific ventilation requirements noted, but forced ventilation may still be required if air contamination exceeds acceptable level.

RESPIRATORS

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

PROTECTIVE GLOVES

Chemical resistant gloves recommended to prevent prolonged or repeated contact.

EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact.

PROTECTIVE CLOTHING	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

APPEARANCE/PHYSICAL STATE	Grease.		
COLOR	Tan.		
ODOR	Mild (or faint). Petroleum.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
DENSITY	0.96	Temperature (°C)	16
VAPOR DENSITY (air=1)	> 5		
VAPOR PRESSURE	< 0.01 mmHg	Temperature (°C)	20
EVAPORATION RATE	< 1	Reference	BuAc=1
pH-VALUE, CONC. SOLUTION	N/A		

10. STABILITY AND REACTIVITY

STABILITY	Normally stable.
CONDITIONS TO AVOID	Avoid contact with acids and oxidizing substances.
HAZARDOUS POLYMERIZATION	Will not occur.
POLYMERIZATION DESCRIPTION	Not applicable
HAZARDOUS DECOMPOSITION PRODUCTS	Residues of: Carbon.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION	No experimental toxicological data on the preparation as such is available.
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12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION	There is no ecological data on the product itself.
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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.
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14. TRANSPORT INFORMATION

DOT HAZARD CLASS Not regulated.
SEA TRANSPORT NOTES Not regulated.
AIR TRANSPORT NOTES Not regulated.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

COMPONENT	SARA 302	CERCLA	SARA 313
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY PARAFFINIC	N/A	N/A	N/A
RESIDUAL OILS, PETROLEUM. HYDROTREATED	N/A	N/A	N/A

CLEAN AIR ACT

US STATE REGULATIONS

STATE REGULATORY STATUS

1-Naphthylamine, CAS # 134-32-7, <1ppm
 2-Naphthylamine, CAS # 91-59-8, <1ppm

REGULATORY STATUS (Canada)

Not a controlled product.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHIMIS

INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY PARAFFINIC	DSL	Yes	EINECS	Yes	No	Yes	NAV	Yes
RESIDUAL OILS, PETROLEUM. HYDROTREATED	DSL	Yes	EINECS	NAV	NAV	NAV	NAV	NAV

16. OTHER INFORMATION

HEALTH Irritation, minor residual injury (1)
FLAMMABILITY Burns only if pre-heated (1).
REACTIVITY N/A (0).
PREPARED BY

DATE 2009-01-13

DISCLAIMER While the information and recommendations set forth herein are believed to be accurate as of the date thereof, The Timken Company makes no warranty with respect thereto and disclaims all liability from reliance therein.