

MATERIAL SAFETY DATA SHEET

TIMKEN BALL BEARING ELECTRIC MOTOR GREASE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME TIMKEN BALL BEARING AND ELECTRIC MOTOR GREASE
PART No. GR218
PRODUCT USE Lubricating Grease
SUPPLIER The Timken Corporation
1835 Dueber Ave.
P.O. Box 6930
Canton, OH 44706-0930
Tel: (330) 438-3000

CANADIAN PIN N/A

2. COMPOSITION, INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	WEIGHT
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY PARAFFINIC	64741-88-4	70-100 %
RESIDUAL OILS, PETROLEUM, SOLVENT-REFINED	64742-01-4	0-10 %

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

Exposure to vapors generated at high temperatures, may cause respiratory irritation.
For further information, please refer to section 11.

ACUTE EFFECTS

HEALTH HAZARDS, GENERAL No specific health warnings noted.

CHRONIC EFFECTS

SENSITIZATION	No known information.
CARCINOGENICITY	IARC: Not listed. OSHA: Not regulated. NTP: Not listed.
TERATOGENICITY	No known information.

HEALTH WARNINGS

SKIN CONTACT. Repeated or prolonged contact can result in drying of the skin. EYE CONTACT. Irritating. INGESTION. Can cause stomach ache and vomiting. 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.

OTHER INFORMATION

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.
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
FLAMMABILITY CLASS	No Uniform Fire Code noted.
EXTINGUISHING MEDIA	Use: Foam. Carbon dioxide (CO2). 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. 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. Explosion risk when heated. Aerosol cans may explode in case of fire.
HAZARDOUS COMBUSTION PRODUCTS	Acrid smoke/fumes. Oxides of: Carbon.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Minimize skin contact. Avoid breathing vapors. Wear an appropriate respirator if exposure exceeds recommended guidelines. Remove sources of ignition.
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	Carefully collect spilled material in closed containers and leave for disposal according to local regulations. Provide good ventilation. Use appropriate protective clothing. Rinse area with water. Do not let washing down water contaminate ponds or waterways.

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

COMPONENT	STD	TWA	STEL	TWA	STEL
DISTILLATES, PETROLEUM, SOLVENT-REFINED HEAVY PARAFFINIC	OSHA	5 mg/m ³	N/E		
	ACGIH	5 mg/m ³	10 mg/m ³		
RESIDUAL OILS, PETROLEUM, SOLVENT-REFINED	OSHA	5 mg/m ³	N/E		
	ACGIH	5 mg/m ³	10 mg/m ³		

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 required for 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	Blue.		
ODOR	Mild (or faint). Petroleum.		
SOLUBILITY DESCRIPTION	Insoluble in water.		
DENSITY/SPECIFIC GRAVITY (g/ml)	0.90	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 polymerize.
HAZARDOUS DECOMPOSITION PRODUCTS	Oxides of: Carbon.

11. TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION	No data on possible environmental effects have been found.
-------------------------------	--

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS Dispose of in accordance with Local Authority requirements.

14. TRANSPORT INFORMATION

DOT HAZARD CLASS Not regulated.

IDENTIFICATION No. N/A

U.S. DOT HAZARD LABEL No DOT label requirement noted

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, SOLVENT-REFINED	N/A	N/A	N/A

REGULATORY STATUS This Product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented):
SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.
TSCA: The ingredients of this product are on the TSCA Inventory. SARA 311 Categories: None.

CLEAN AIR ACT

US STATE REGULATIONS

STATE REGULATORY STATUS This product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented):. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHIMIS

CONTROLLED PRODUCT CLASSIFICATION This product has been classified according to the hazard criteria of the Controlled Products Regulations, and the MSDS contains all required information.

COMPONENT	INVENTORIES							
	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, SOLVENT-REFINED	DSL	Yes	EINECS	Yes	No	Yes	NAV	Yes

16. OTHER INFORMATION

HEALTH	Irritation, minor residual injury (1)
FLAMMABILITY	Burns only if pre-heated (1).
REACTIVITY	N/A (0).
SPECIAL HAZARD	N/A
NPCA HMIS HAZARD INDEX	Slight Hazard (1)
NPCA HMIS PERS. PROTECT. INDEX	B
PREPARED BY	David Pierman
DATE	August 20, 2003
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.