SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: TIMKEN GR 217

Other means of identification: No data available.

Recommended use of the chemical and restrictions on use

Recommended use: Lubricating grease
Recommended restrictions: Industrial use only

Manufacturer/Importer/Distributor Information

Distributor

Company Name:	The Timken Corporation
Address:	4500 Mt. Pleasant St. NW North Canton, OH 44720 U.S.A.
Telephone:	234.262.3000

Emergency telephone number: INFOTRAC US & CANADA – 800.535.5053 Outside U.S. & Canada +1 352.323.3500

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Oral)	Category 5
Acute toxicity (Dermal)	Category 5
Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Eye Irritation	Category 2A

Unknown toxicity - Health

Acute toxicity, oral	11.45 %
Acute toxicity, dermal	12.52 %
Acute toxicity, inhalation, vapor	98.61 %
Acute toxicity, inhalation, dust or mist	26.81 %

Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement: H303+H313: May be harmful if swallowed or in contact with skin.
H316: Causes mild skin irritation.
H319: Causes serious eye irritation.

Precautionary Statements

Prevention: P264: Wash face, hands and any exposed skin thoroughly after handling.
P280: Wear eye protection/face protection.

Response: P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Paraffin oils (petroleum)	Trade Secret	60 - 100%
Lithium soap	Trade Secret	10 - 30%
Polyisobutylene	Trade Secret	1 - 5%
Mineral oil	Trade Secret	1 - 5%
Boric acid, potassium salt	Trade Secret	1 - 5%
Antioxidant	41484-35-9	1 - 5%
Zinc compound	Trade Secret	0.5 - 5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation: Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.

Skin Contact: Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Ingestion: Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, fog, CO2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

For non-emergency personnel: No data available.

For emergency responders: No data available.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container. Avoid contact with eyes. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Paraffin oils (petroleum)	VLE-PPT	5 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Mineral oil	VLE-PPT	5 mg/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection
Hand Protection: No data available.

Other: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance	
Physical state:	solid
Form:	Grease
Color:	Amber
Odor:	Mild
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	Not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Density:	No data available.
Relative density:	0.924
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	Harmful if inhaled. Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes skin irritation. Prolonged skin contact may cause redness and irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	May be harmful if swallowed. May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix (): 2000 - 5000 mg/kg

Dermal
Product: ATEmix (): 2000 - 5000 mg/kg

Inhalation
Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Paraffin oils (petroleum)	LC 50 (Rat): > 5.001 mg/l
Polyisobutylene	LC 50 (Rat): 17.3 mg/l
Mineral oil	LC 50 (Rat): > 5,000 mg/l LC 50 (Rat): > 5.53 mg/l LC 50: > 5,000 mg/l
Boric acid, potassium salt	LC 50 (Rat): > 2.12 mg/l LC 50 (Rat): > 2.03 mg/l LC 50 (Rat): > 0.16 mg/l

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):

Paraffin oils (petroleum)	in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 h Experimental result, Key study
Lithium soap	in vivo (Rabbit): Slightly irritating , 1 - 7 d Experimental result, Supporting study In vitro (Human, in vitro reconstituted epidermis model): Not irritant , 6 d Experimental result, Key study in vivo (Rabbit): Not irritant , 4 - 72 h Experimental result, Supporting study In vitro (Human, in vitro reconstituted epidermis model): Non-corrosive , 2 d Experimental result, Key study
Mineral oil	in vivo (Rabbit): Not irritant , 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 h Experimental result, Key study
Boric acid, potassium salt	in vivo (Rabbit): Not Classified , 24 - 72 h Experimental result, Weight of Evidence study in vivo (Rabbit): Not classifiable , 72 h Experimental result, Supporting study in vivo (Guinea pig): Not irritant , 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 72 h Experimental result, Supporting study in vivo (Rabbit): not corrosive , 48 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 48 h Experimental result, Supporting study
Antioxidant	in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 24 - 72 h Read-across from supporting substance (structural analogue or surrogate), Key study
Zinc compound	(Rabbit): Not irritant , 24 - 72 h Experimental result, Supporting study in vivo (Rabbit): Category 2 , 24 - 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Paraffin oils (petroleum)	Rabbit, 24 hrs: Not irritating EU
Mineral oil	Rabbit, 48 hrs: Not irritating EU
Zinc compound	Rabbit, 24 - 72 hrs: Corrosive OECD GHS

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Mineral oil	LC 50 (Fish, 96 h): > 100 mg/l
Zinc compound	LC 50 (Pimephales pomoxis, 96 h): 100 mg/l LC 50 (Pimephales pomoxis, 96 h): 25 - 50 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Mineral oil	EC50 (Shrimp (Callianassa australiensis), 48 h): > 100 mg/l
Zinc compound	EC50 (Daphnia magna, 48 h): 4 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Mineral oil	EC50 (Daphnia, 14 d): 0.058 mg/l EC50 (21 d): 0.054 mg/l EC50 (2 d): > 10,000 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Mineral oil	EC50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 100 mg/l

Zinc compound	EC50 (Pseudokirchneriella subcapitata (green algae), 96 h): 1 mg/l

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Paraffin oils (petroleum)	No data available.
Lithium soap	No data available.
Polyisobutylene	No data available.
Mineral oil	No data available.
Boric acid, potassium salt	No data available.
Antioxidant	No data available.
Zinc compound	No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated.

IATA
Not regulated.

IMDG
Not regulated.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

Mexico. Substances subject to reporting for the pollutant release and transfer registry (PRTR)
None present or none present in regulated quantities.

Mexico. Federal Law for the Control of Chemical Substances Susceptible to Diversion to Manufacturing of Chemical Weapons, Appendix 1: National list of chemical substances
Not applicable

Mexico. Wastewater Discharges - Maximum Limits into Coastal Waters, Dams, Rivers, Soil and Wetlands (NOM-001-ECOL)

Zinc compound	Listed.

Mexico. Hazardous Chemicals (NOM-028-STPS-2012, System for administration of workplace safety in the process and critical equipment for handling hazardous chemicals, Appendix A, Table A.I)
Not applicable

Mexico. Narcotic Drugs List (General Health Law, Articles 234 & 239, Feb. 7, 1984)
Not applicable

Mexico. Psychotropic Drugs (General Health Law, Feb. 7, 1984, Articles 245 & 254 Bis)
Not applicable

16.Other information, including date of preparation or last revision

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Revision Information:	12/01/2022**:** ARGHS_MX
Version #:	1.0
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.