

SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: TIMKEN GR 180

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 (Dermal)	Category 5
Skin Corrosion/Irritation	Category 3
Skin sensitizer	Category 1
Toxic to reproduction	Category 2

Unknown toxicity - Health

Acute toxicity, oral	21.43 %
Acute toxicity, dermal	14.62 %
Acute toxicity, inhalation, vapor	42 %
Acute toxicity, inhalation, dust or mist	41.8 %

Label Elements

Hazard Symbol:



Signal Word:

Danger

Hazard Statement: H313: May be harmful in contact with skin.
 H316: Causes mild skin irritation.
 H317: May cause an allergic skin reaction.
 H361: Suspected of damaging fertility or the unborn child.

Precautionary Statements

Prevention: P201: Obtain special instructions before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P302+P352: IF ON SKIN: Wash with plenty of water.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
 P321: Specific treatment (see supplemental first aid instructions on this label).
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P308+P313: IF exposed or concerned: Get medical advice/attention.

Storage: P405: Store locked up.

Disposal: P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Residual oils	Trade Secret	40 - 70%
Polymer	Trade Secret	7 - 13%
Mineral oil	Trade Secret	7 - 13%
Dodecylbenzene calcium sulfonate	Trade Secret	7 - 13%
Calcium carbonate	471-34-1	3 - 7%
Calcium 12-hydroxyoctadecanoate	Trade Secret	3 - 7%
Naphthenic acids, zinc salts	Trade Secret	1 - 5%
Magnesium silicate	14807-96-6	1 - 5%
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	0.1 - 1%

* 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:	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.
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.
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5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.
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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Water spray, fog, CO ₂ , 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.
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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.
For non-emergency personnel:	No data available.
For emergency responders:	No data available.
Methods and material for containment and cleaning up:	Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.
Environmental Precautions:	Avoid release to the environment. 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. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.
Conditions for safe storage, including any incompatibilities:	Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Residual oils	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)
Magnesium silicate - Respirable fraction.	VLE-CT	2 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.
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Individual protection measures, such as personal protective equipment

General information:	Use personal protective equipment as required.
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:	250 °C
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:	0.95
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.
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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:	None under normal conditions. This product contains a low concentration of hydrated magnesium silicate (Talc). Under the International Agency for Research on Cancer (IARC), Talc in powder form is classified as Group 1: Carcinogenic to Humans. This is based on exposure through inhalation and perineal dusting with talc-based body powders. For this product, Talc is bound in the product's matrix (grease). As a consequence, exposure to airborne Talc particles/dusts is not anticipated.
Skin Contact:	May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	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 (): > 5000 mg/kg
Dermal	
Product:	ATEmix (): 2000 - 5000 mg/kg
Inhalation	
Product:	No data available.
Specified substance(s):	
Residual oils	LC 50 (Rat): < 5.7 mg/l LC 50: 5.7 mg/l

Mineral oil LC 50 (Rat): > 5.53 mg/l
LC 50 (Rat): 22 mg/l

Benzenamine, N-phenyl-,
reaction products with
2,4,4-trimethylpentene LC 50 (Rat): > 5.8 mg/l

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

Residual oils	in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 h Experimental result, Key study in vivo (Rabbit): Not irritant , 72 h Experimental result, Key study
Mineral oil	in vivo (Rabbit): Not irritant , 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 24 h Experimental result, Supporting study in vivo (Rabbit): Category 2 , 24 - 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 72 h Experimental result, Supporting study in vivo (Rabbit): Not irritant , 24 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study in vivo (Rabbit): Not irritant , 24 h Experimental result, Supporting study
Calcium carbonate	in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study
Calcium 12- hydroxyoctadecanoate	In vitro (Human, in vitro reconstituted epidermis model): Non-corrosive , 2 d Read-across from supporting substance (structural analogue or surrogate), Key study in vivo (Rabbit): Not irritant , 4 - 72 h Experimental result, Supporting study In vitro (Human, in vitro reconstituted epidermis model): Not irritant , 6 d Read-across from supporting substance (structural analogue or surrogate), Key study
Benzenamine, N- phenyl-, reaction products with 2,4,4- trimethylpentene	in vivo (Rabbit): Slightly irritating , 1 - 168 h Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Residual oils	Rabbit, 24 hrs: Not irritating EU
Mineral oil	Rabbit, 24 hrs: Not irritating EU Rabbit, 48 hrs: Not irritating EU
Calcium carbonate	Rabbit, 24 - 72 hrs: Not irritating EU

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Rabbit, 1 - 168 hrs: Not irritating EU

Respiratory or Skin Sensitization

Product: May cause an allergic skin reaction.

Carcinogenicity

Product: This product contains a low concentration of hydrated magnesium silicate (Talc). Under the International Agency for Research on Cancer (IARC), Talc in powder form is classified as Group 1: Carcinogenic to Humans. This is based on exposure through inhalation and perineal dusting with talc-based body powders. For this product, Talc is bound in the product's matrix (grease). As a consequence, exposure to airborne Talc particles/dusts is not anticipated.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Magnesium silicate Overall evaluation: 1. Carcinogenic to humans.

Germ Cell Mutagenicity

In vitro Product: No data available.

In vivo Product: No data available.

Reproductive toxicity

Product: Suspected of damaging fertility or the unborn child.

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):

SDS_MX - 000000012829

Calcium carbonate LC 50 (Fish): > 100 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Mineral oil EC50 (Daphnia): > 1,000 mg/l

Calcium carbonate EC50 (Daphnia): > 100 mg/l

Benzenamine, N-phenyl-,
reaction products with
2,4,4-trimethylpentene EC50 (Water Flea, 48 h): 51 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Benzenamine, N-phenyl-,
reaction products with
2,4,4-trimethylpentene EC50 (Water Flea, 48 d): > 51 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Benzenamine, N-phenyl-,
reaction products with
2,4,4-trimethylpentene EC50 (Algae (*Pseudokirchneriella subcapitata*), 72 h): > 100 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

Residual oils No data available.

Polymer No data available.

Mineral oil	No data available.
Dodecylbenzene calcium sulfonate	No data available.
Calcium carbonate	No data available.
Calcium 12-hydroxyoctadecanoate	No data available.
Naphthenic acids, zinc salts	No data available.
Magnesium silicate	No data available.
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	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)
Not applicable

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)
none

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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Issue Date: 04/03/2023

Revision Information: No data available.

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.