

## SAFETY DATA SHEET

### 1. Identification of the hazardous chemical and of the supplier

**Product identifier:** TIMKEN GR 181

**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 2
Skin sensitizer	Category 1
Toxic to reproduction	Category 2

##### Unknown toxicity - Health

Acute toxicity, oral	24.35 %
Acute toxicity, dermal	19.96 %
Acute toxicity, inhalation, vapor	49.25 %
Acute toxicity, inhalation, dust or mist	49.05 %

#### Label Elements

##### Hazard Symbol:



##### Signal Word:

Danger

**Hazard Statement:** H313: May be harmful in contact with skin.  
 H315: Causes 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.  
 P264: Wash face, hands and any exposed skin thoroughly after handling.  
 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%
Mineral oil	Trade Secret	7 - 13%
Dodecylbenzene calcium sulfonate	Trade Secret	7 - 13%
Polymer	Trade Secret	7 - 13%
Calcium carbonate	471-34-1	5 - 10%
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

<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.
<b>Skin Contact:</b>	Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
<b>Ingestion:</b>	Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

### Most important symptoms/effects, acute and delayed

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Get medical attention if symptoms occur.
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## 5. Fire-fighting measures

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
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### Suitable (and unsuitable) extinguishing media

<b>Suitable extinguishing media:</b>	Water spray, fog, CO <sub>2</sub> , dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.
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<b>Unsuitable extinguishing media:</b>	Do not use water jet as an extinguisher, as this will spread the fire.
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<b>Specific hazards arising from the chemical:</b>	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

<b>Special fire-fighting procedures:</b>	No data available.
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<b>Special protective equipment for fire-fighters:</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
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## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures:</b>	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.
<b>For non-emergency personnel:</b>	No data available.
<b>For emergency responders:</b>	No data available.
<b>Methods and material for containment and cleaning up:</b>	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.
<b>Environmental Precautions:</b>	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

<b>Precautions for safe handling:</b>	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. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing.
<b>Conditions for safe storage, including any incompatibilities:</b>	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)

<b>Appropriate Engineering Controls</b>	No data available.
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## Individual protection measures, such as personal protective equipment

<b>General information:</b>	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.
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles).
<b>Skin Protection</b>	
<b>Hand Protection:</b>	No data available.
<b>Other:</b>	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
<b>Respiratory Protection:</b>	In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.
<b>Hygiene measures:</b>	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

<b>Physical state:</b>	solid
<b>Form:</b>	Semisolid
<b>Color:</b>	Amber
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	250 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper:</b>	No data available.
<b>Explosive limit - lower:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	0.95
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble in water
<b>Solubility (other):</b>	No data available.

<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

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

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	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.
<b>Skin Contact:</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	May be harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	ATEmix (): > 5000 mg/kg
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## Dermal

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

## Inhalation

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

### 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  
in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study

Calcium carbonate In vitro (Human, in vitro reconstituted epidermis model): Non-corrosive , 2 d  
Calcium 12-  
hydroxyoctadecanoate 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):

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.

Mineral oil No data available.

Dodecylbenzene calcium sulfonate No data available.

Polymer No data available.

Calcium carbonate No data available.

Calcium 12-

hydroxyoctadecanoate

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

<b>16. Other information, including date of preparation or last revision</b>
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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.