

## SAFETY DATA SHEET

### 1. Identification

<b>Product name</b>	TIMKEN GR231
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Lubricating grease
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Supplier/Distributor Information

#### Supplier

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

Serious Eye Damage/Eye Irritation      Category 2A

#### Label Elements

##### Hazard Symbol:



**Signal Word:**                      Warning

**Hazard Statement:**              Causes serious eye irritation.

##### Precautionary Statements

**Prevention:**                      Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Other hazards which do not result in GHS classification:** None.

**Unknown toxicity - Health**

Acute toxicity, oral	10.34 %
Acute toxicity, dermal	9.84 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	91.25 %

### 3. Composition/information on ingredients

**Hazardous Component(s):**

Chemical name	CAS-No.	Concentration
White mineral oil	8042-47-5	70 - <90%
Aluminum soap	Confidential	5 - <10%
Polyisobutylene	Confidential	1 - <10%
Zinc compound	Confidential	1 - <5%
Calcium carbonate	471-34-1	1 - <5%
Aryl thiophosphate	Confidential	0.1 - <1%

Specific chemical identities and/or exact percentages have been withheld as trade secrets.

### 4. First-aid measures

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

**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.

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

**Symptoms:** 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.

**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

### Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
White mineral oil - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended (03 2012)
White mineral oil - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Aluminum soap - Respirable fraction.	TWA	1 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values, as amended (03 2012)
Calcium carbonate - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Calcium carbonate - Respirable fraction.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)

### Protective Measures:

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.

### Respiratory Protection:

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

### Eye Protection:

Wear safety glasses with side shields (or goggles).

### Skin and Body Protection:

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

### 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

<b>Physical state:</b>	solid
<b>Form:</b>	Grease
<b>Color:</b>	Colorless
<b>Odor:</b>	Mild petroleum/solvent
<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>	267.78 °C (514.00 °F)
<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>Relative density:</b>	0.89
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Insoluble
<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>	> 22 mm <sup>2</sup> /s (40 °C, estimated)

## 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>Ingestion:</b>	May be harmful if swallowed.
<b>Inhalation:</b>	None under normal conditions.
<b>Skin Contact:</b>	Prolonged or repeated skin contact may cause drying, cracking, or irritation.
<b>Eye contact:</b>	Causes serious eye irritation.

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

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

**Eye contact:** 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.

**Repeated dose toxicity**  
**Product:** No data available.

**Skin Corrosion/Irritation**  
**Product:** No data available.

**Serious Eye Damage/Eye Irritation**  
**Product:** No data available.

**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

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:**  
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

**General information:** This product has not been evaluated for ecological toxicity or other environmental effects.

## 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.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

## 15. Regulatory information

### US Federal Regulations

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended**  
None present or none present in regulated quantities.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate (Acute) Health Hazards  
Serious eye damage or eye irritation

## SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
Zinc compound	10000 lbs.	25000 lbs.

## US State Regulations

### US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

<b>16. Other information, including date of preparation or last revision</b>
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**Issue Date:** 22.02.2023

**Revision Date:** 08.02.2023

**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.