

Section 1: Identification

Product identifier Timken GR231
Other means of identification Not available.

Recommended use of the chemical and restrictions on use

Recommended use Lubricating grease.
Restrictions on use For industrial use only.

Details of manufacturer or importer

Manufacturer

Company name The Timken Company
Address 4500 Mount Pleasant Street NW
 North Canton
 OH
 44720
 United States
Telephone (234) 262-3000
E-mail Not available.

Emergency phone number 0800 764 766 (NZ Poisons Centre); 111 (Emergency Services); +61 3 9573 3188 (CHEMWATCH)

Section 2: Hazard identification

Classification of the hazardous chemical

Physical hazards Not classified.
Health hazards Reproductive toxicity (the unborn child,) Category 2
Environmental hazards Not classified.

Label elements, including precautionary statements

Hazard symbol(s)



Health hazard

Signal word

Warning

Hazard statement(s)

Suspected of damaging the unborn child.

Precautionary statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

IF exposed or concerned: Get medical advice/attention.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification

None.

Supplemental information

None.

Section 3: Composition/information on ingredients

Substance or mixture Mixture

Chemical property	CAS Number	Concentration (%)
Alkylated phosphorothioate	192268-65-8	0.5
Triphenyl phosphorothionate	597-82-0	0.5
White mineral oil (Viscosity >7 =<20.5 mm2/s)	8042-47-5	77.24

Composition comments

All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

Section 4: First-aid measures

Description of necessary first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do not induce vomiting without advice from poison control centre. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Personal protection for first-aid responders IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Symptoms caused by exposure Suspected of damaging the unborn child.

Medical attention and special treatment Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

Section 5: Fire-fighting measures

Extinguishing media	Foam. Dry chemicals. Carbon dioxide (CO ₂).
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
HAZCHEM Code Number	None.
Specific hazards during fire fighting	During fire, gases hazardous to health may be formed.
Special fire fighting procedures	Cool containers exposed to heat with water spray and remove container, if no risk is involved.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Hazards from combustion products	None.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Wear appropriate personal protective equipment.
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Section 7: Handling and storage

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Keep away from heat and sources of ignition. Store in tightly closed container. Store away from incompatible materials (see section 10 of the SDS).

Section 8: Exposure controls/personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits

New Zealand. OELs (Workplace Exposure Standards and Biological Exposure Indices)

Components	Type	Value	Form
White mineral oil (Viscosity >7 =<20.5 mm ² /s) (CAS 8042-47-5)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
White mineral oil (Viscosity >7 =<20.5 mm ² /s) (CAS 8042-47-5)	TWA	5 mg/m ³	Inhalable fraction.

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
White mineral oil (Viscosity >7 =<20.5 mm ² /s) (CAS 8042-47-5)	TWA	5 mg/m ³
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Control banding	Not applicable.	
Appropriate engineering controls	Good general ventilation 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.	
Individual protection measures, for example personal protective equipment (PPE)		
Eye/face protection	Wear safety glasses with side shields (or goggles).	
Skin protection		
Hand protection	Wear appropriate chemical resistant gloves.	
Other	Use of an impervious apron is recommended.	
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
Hygiene measures	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	

Section 9: Physical and chemical properties**Appearance**

Physical state	Solid.
Form	Grease.
Colour	Colourless.
Odour	Mild. Petroleum solvent.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Kinematic viscosity	Not available.
Other physical and chemical parameters	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
Viscosity	180 cSt

Section 10: Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	No hazardous decomposition products are known.

Section 11: Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
White mineral oil (Viscosity >7 =<20.5 mm ² /s) (CAS 8042-47-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 5 mg/l
Oral		
LD50	Rat	> 5000 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory irritation Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.

Respiratory or skin sensitisation

Respiratory sensitisation	Not a respiratory sensitiser.
Skin sensitisation	This product is not expected to cause skin sensitisation.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

ACGIH Carcinogens

White mineral oil (Viscosity >7 =<20.5 mm²/s) (CAS 8042-47-5) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

White mineral oil (Viscosity >7 =<20.5 mm²/s) (CAS 8042-47-5) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Narcotic effects None known.

Chronic effects Prolonged inhalation may be harmful.

Further information None known.

Section 12: Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results	
White mineral oil (Viscosity >7 =<20.5 mm ² /s) (CAS 8042-47-5)			
Aquatic			
<i>Acute</i>			
Crustacea	LL50	Invertebrates (Invertebrates)	100 mg/l
Fish	LL50	Fish	10 mg/l

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential No data available.

Mobility in soil The product is immiscible with water and will spread on the water surface. Not expected to be mobile in soil.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal considerations

Disposal methods Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Special precautions to be taken during disposal Dispose in accordance with all applicable regulations.

Method of disposal that should not be used None known.

Section 14: Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Section 15: Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

Alkylated phosphorothioate (CAS 192268-65-8)	Does not have individual approval but may be used under an appropriate group standard
Triphenyl phosphorothionate (CAS 597-82-0)	Does not have individual approval but may be used under an appropriate group standard
White mineral oil (Viscosity >7 =<20.5 mm ² /s) (CAS 8042-47-5)	Does not have individual approval but may be used under an appropriate group standard

International regulations

Stockholm Convention

Not listed.

Rotterdam Convention

Not listed.

Montreal Protocol

Not listed.

Kyoto Protocol

Not listed.

Basel Convention

Not listed.

Section 16: Other information

References Not available.

Issued by

Not available.

Prepared by

Not available.

Disclaimer

The Timken Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

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