

TIMKEN**SAFETY DATA SHEET****1. Identification of the product****GHS product identifier** Timken GR220**Other means of identification** None.**Recommended use of the chemical and restrictions on use****Recommended use** Lubricating grease.**Recommended restrictions** For industrial use only. Uses other than the recommended use.**Suppliers details****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.**Contact person** INFOTRAC**Emergency phone number** 1-800-535-5053**2. Hazard identification****Classification of the substance or mixture****Physical hazards** Not classified.**Health hazards** Reproductive toxicity (fertility) Category 2**Environmental hazards** Not classified.**GHS label elements, including precautionary statements****Signal word** Warning**Hazard statement**

H361 Suspected of damaging fertility.

Precautionary statement**Prevention**P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.**Response**

P308 + P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification None known.**Supplemental information** None.**3. Composition/information on ingredients****Mixtures**

Chemical identity	Common name(s), synonym(s)	CAS number and other unique identifiers	Concentration
1-Decene, homopolymer, hydrogenated		68037-01-4	50 - 90
3,3'-dicyclohexyl-1,1'-methylenebis (4,1-phenylene)diurea		58890-25-8	5 - 10
1-Propene, 2-methyl-sulfurized		68511-50-2	1 - 5
3,3'-Dioctadecyl -1,1'-methylenebis (4,1-phenylene) diurea		43136-14-7	1 - 5
Talc		14807-96-6	1 - 5
Urea, N-(4-((4-(((cyclohexylamino)carbonyl)amino)phenyl)methyl)phenyl)-N'-octadecyl-		154099-21-5	1 - 5
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene		68411-46-1	0.1 - 1
Molybdenum, bis(dibutylcarbamo-dithioato)di- μ -oxodioxodi-, sulfurized		68412-26-0	0.1 - 1

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

4. First-aid measures

Description of necessary first-aid measures

Inhalation Move to fresh air. If not breathing, give artificial respiration. 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. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed Direct contact with eyes may cause temporary irritation. Suspected of damaging fertility.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

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

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective actions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use water spray to cool unopened containers.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

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 The product is immiscible with water and will spread on the water surface. 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.

7. Handling and storage

Precautions to ensure safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment.

Conditions for safe storage, including any incompatibilities Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Dominican Republic. OELs (Regulation of Safety and Health in the Workplace - Decree No. 522-06 and Resolution No. 04-2007 of January 30, 2007) updated with ACGIH, as updated through ACGIH

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m ³	Respirable fraction.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m ³	Respirable fraction.

Biological limit values No biological exposure limits noted for the ingredient(s).

Control banding approach Not established.

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, such as personal protective equipment

Eye/face protection If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Use of an impervious apron is recommended.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations 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.

9. Physical and chemical properties

Appearance

- Physical state** Solid.
- Form** Semi-solid.
- Color** Light tan.

Odor Mild.

Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	392 °F (200 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Will burn if involved in a fire.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.95
Solubility(ies)	
Solubility (water)	Insoluble in water.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

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 oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed.

Symptoms Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
1-Propene, 2-methyl- sulfurized (CAS 68511-50-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Vapor</i>		
LC50		> 0.39 mg/l, 4 hours

Components	Species	Test Results
Oral LD50	Rat	5700 mg/kg
Molybdenum, bis(dibutylcarbamodithioato)di- μ -oxodioxodi-, sulfurized (CAS 68412-26-0)		
Acute		
Dermal LD50	Rabbit	> 5000 mg/kg
Inhalation		
<i>Dust</i>		
LC50	Rat	34.4 mg/l, 4 Hours
Oral LD50	Rat	> 2000 mg/kg
Talc (CAS 14807-96-6)		
Acute		
Oral LD50	Rat	> 5000 mg/kg
Urea, N-(4-((4-(((cyclohexylamino)carbonyl)amino)phenyl)methyl)phenyl)-N'-octadecyl- (CAS 154099-21-5)		
Acute		
Dermal LD50	Rat	> 2000 mg/kg
Oral LD50	Rat	> 2000 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 or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
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		
Molybdenum, bis(dibutylcarbamodithioato)di- μ -oxodioxodi-, sulfurized (CAS 68412-26-0)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
Talc (CAS 14807-96-6)	A4 Not classifiable as a human carcinogen.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Talc (CAS 14807-96-6)	3 Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity	Suspected of damaging fertility.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Other information	None known.	
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
Molybdenum, bis(dibutylcarbamodithioato)di- μ -oxodioxodi-, sulfurized (CAS 68412-26-0)			
Aquatic			
<i>Acute</i>			
Algae	EL50	Pseudokirchneriella subcapitata	> 100 mg/l, 72 Hours
Crustacea	EL50	Daphnia magna	> 100 mg/l, 48 Hours
Fish	LL50	Pimephales promelas	> 100 mg/l, 48 Hours
<i>Chronic</i>			
Algae	NOELR	Pseudokirchneriella subcapitata	100 mg/l, 72 Hours
Urea, N-(4-((4-(((cyclohexylamino)carbonyl)amino)phenyl)methyl)phenyl)-N'-octadecyl- (CAS 154099-21-5)			
Aquatic			
<i>Acute</i>			
Algae	EL50	Raphidocelis subcapitata	> 100, 72 Hours
Crustacea	EL50	Daphnia magna	> 100 mg/l, 48 Hours
Fish	LL50	Danio rerio	> 100 mg/l, 96 Hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	The product is insoluble in water. Expected to have low mobility 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.

13. Disposal considerations

Disposal methods

Disposal instructions	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.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	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.
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.

14. Transport information

ANTT

Not regulated as dangerous goods.

DOT

Not regulated as dangerous goods.

SCT

Not regulated as dangerous goods.

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.

15. Regulatory information

International regulations

Montreal Protocol

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information**Revision date**

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List of abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists.
 ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
 ANTT: National Agency of Land Transport.
 CAS: Chemical Abstract Service.
 DOT: Department of Transportation.
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 IARC: International Agency for Research on Cancer.
 IATA: International Air Transport Association.
 IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
 IMDG: International Maritime Dangerous Goods.
 MARPOL: International Convention for the Prevention of Pollution from Ships.
 NFPA: National Fire Protection Association.
 SCT: Secretariat of Communications and Transportation (NOM-002-SCT/2011).
 STEL: Short term exposure limit.
 TWA: Time Weighted Average.

References

IARC Monographs. Overall Evaluation of Carcinogenicity
 Workplace Threshold Quantities of Hazardous Chemicals

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.