



SAFETY DATA SHEET

1. Identification

Name of the substance or mixture (trade name) Timken GR220

Major recommended uses for the substance or mixture Lubricating grease.

Specific restrictions for use of the substance or mixture For industrial use only. Uses other than the recommended use.

Manufacturer/Importer/Distributor information

Manufacturer

Company name The Timken Company
Address 4500 Mount Pleasant Street NW
North Canton, OH 44720
United States
Telephone (234) 262-3000
Website
Contact person INFOTRAC
Emergency telephone number 1-800-535-5053

2. Hazards identification

Classification of the substance or mixture

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.

GHS labeling elements, including precautionary statements

Hazard symbol(s) None.
Signal word None.
Hazard statement(s) The mixture does not meet the criteria for classification.
Precautionary statement(s)
Prevention Not assigned.
Response Not assigned.
Storage Not assigned.
Disposal Not assigned.

Other hazards which do not result in classification None known.

Supplemental information None.

3. Composition/information on ingredients

Mixture

Common chemical name or technical name	CAS number	Concentration or concentration range
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-(((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(dibutylcarbomodithioato)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

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.

Personal protection for first-aid responders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Means of fire extinguishing

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 fire fighting procedures Use water spray to cool unopened containers.

Protective measures taken by firefighting crews Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

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. Control measures for spills and leaks

Personal precautions, protective equipment and emergency procedures

To be taken by those who are not involved in rendering emergency services Wear appropriate personal protective equipment.

To be taken by those who are involved in rendering emergency services Keep unnecessary personnel away. 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 for safe handling Avoid prolonged exposure. Observe good industrial hygiene practices.

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

8. Exposure controls/personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits

US. ACGIH Threshold Limit Values (TLV)

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

Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace, as updated through ACGIH

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013), as updated through ACGIH

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Peru. OELs. Decreto Supremo 015-2005-SA (Reglamento sobre Valores Límites Permisibles para Agentes Químicos en el Ambiente de Trabajo)

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Venezuela. VTRE (Technical Reference Exposure Values, Table 1, FONDONORMA 2253)

Components	Type	Value	Form
Talc (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

Biological limit values

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

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.

Personal protective measures

Eyes and face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear suitable protective clothing.

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.

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 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 temperature 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 physical and chemical parameters	
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.
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
Oral		
LD50	Rat	5700 mg/kg
Molybdenum, bis(dibutylcarbamodithioato)di- μ -oxidodiodi-, 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

Components	Species	Test Results
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 irritation and corrosion	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.
Colombia. OELs. Resolution No. 02400: Norms Concerning Working Conditions, Health and Safety in the Workplace		
Molybdenum, bis(dibutylcarbamodithioato)di-μ-oxodioxodi-, sulfurized (CAS 68412-26-0)		A3 Animal carcinogen.
Talc (CAS 14807-96-6)		A4 Not classifiable as a human carcinogen.
Ecuador. OELs (INEN 2266:2013, 2013-01 2nd rev.: Transport, storage and handling of hazardous materials. Requirements. 1st ed., 1/29, 2013)		
Molybdenum, bis(dibutylcarbamodithioato)di-μ-oxodioxodi-, sulfurized (CAS 68412-26-0)		Group A3 Confirmed animal carcinogen with unknown relevance to humans.
Talc (CAS 14807-96-6)		Group 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.
Paraguay. Decree No. 14.390/92 that approves the General Technical Regulation of Safety, Hygiene and Medicine in the Workplace		
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.
Toxic to reproduction	Not classified.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may be harmful.	
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.	
Partition coefficient n-octanol / water (log Kow)	Not available.	
Bioconcentration factor (BCF)	Not available.	
Mobility in soil	The product is immiscible with water and will spread on the water surface.	
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. Considerations on final disposal

Recommended methods for final destination

- 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.
- 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.
- Local disposal regulations** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

14. Transport information

National regulations

ANTT

Not regulated as dangerous goods.

International regulations

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

Federal regulations

This product is not classified for Transportation in accordance with Resolution ANTT Resolution 5998, of November 3, 2022, as amended.

Colombia. Controlled Substances (Resolution No. 009 of 1987 nationally regulating the transport & use of substances in subparagraph. f) of article 20 of Law 30 of 1986, as amended)

Not listed.

International regulations

Montreal Protocol

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

16. Other information

Significant information, yet not specifically related to the previous sections Not available.

References

IARC Monographs. Overall Evaluation of Carcinogenicity

Legends and abbreviations

ACGIH: American Conference of Governmental Industrial Hygienists.

ANTT: National Agency of Land Transport.

CAS: Chemical Abstract Service.

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.

STEL: Short term exposure limit.

TWA: Time Weighted Average.

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.