

SAFETY DATA SHEET

1. Identification of the hazardous chemical and of the supplier

Product identifier: TIMKEN GR220

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 (Oral)	Category 5
Acute toxicity (Dermal)	Category 5
Skin sensitizer	Category 1
Toxic to reproduction	Category 2

Unknown toxicity - Health

Acute toxicity, oral	3.54 %
Acute toxicity, dermal	3.55 %
Acute toxicity, inhalation, vapor	99.8 %
Acute toxicity, inhalation, dust or mist	98.69 %

Label Elements

Hazard Symbol:



Signal Word:

Warning

Hazard Statement: H303+H313: May be harmful if swallowed or in contact with skin.
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.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302+P352: IF ON SKIN: Wash with plenty of water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
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 (%) [*]
1-Decene, homopolymer, hydrogenated	68037-01-4	60 - 100%
N,N'-(Methylenedi-4, 1-phenylene)bis(N'-cyclohexylurea)	58890-25-8	7 - 13%
Alkyl polysulfide	68511-50-2	1 - 5%
Magnesium silicate	14807-96-6	1 - 5%
4,4'-Distearylureidodiphenyl	43136-14-7	1 - 5%
Molybdenum compound	68412-26-0	0.5 - 5%
Molybdenum compound (insoluble)	72030-25-2	0.5 - 5%
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	0.1 - 1%
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	0.1 - 1%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

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. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water.
Eye contact:	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.
Ingestion:	Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: 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.

For non-emergency personnel: No data available.

For emergency responders: No data available.

Methods and material for containment and cleaning up:

Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

Environmental Precautions:

Avoid release to the environment. 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. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Magnesium silicate - Respirable fraction.	VLE-CT	2 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound - as Mo	VLE-PPT	5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (03 2000)
	VLE-CT	10 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (03 2000)
Molybdenum compound - Respirable fraction. - as Mo	VLE-PPT	3 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound - Inhalable fraction. - as Mo	VLE-PPT	10 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound - Respirable fraction. - as Mo	VLE-PPT	0.5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound (insoluble) - Respirable fraction. - as Mo	VLE-PPT	0.5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound (insoluble) - Inhalable fraction. - as Mo	VLE-PPT	10 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Molybdenum compound (insoluble) - Respirable fraction. - as Mo	VLE-PPT	3 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Distillates (petroleum),	VLE-PPT	5 mg/m ³	Mexico. OELs. (NOM-010-STPS-2014

hydrotreated heavy naphthenic			Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
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Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection
Hand Protection: No data available.

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

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

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

Physical state: solid

Form: Semisolid

Color: Light tan

Odor: Mild

Odor threshold: No data available.

pH: No data available.

Melting point/freezing point: No data available.

Initial boiling point and boiling range: No data available.

Flash Point: 200 °C

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available.

Flammability limit - lower (%): No data available.

Explosive limit - upper: No data available.

Explosive limit - lower: No data available.

Vapor pressure: No data available.

Vapor density: No data available.

Density: No data available.

Relative density: 0.95

Solubility(ies)

Solubility in water: Insoluble

Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

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

11. Toxicological information

Information on likely routes of exposure

Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	ATEmix (): 2000 - 5000 mg/kg
Dermal Product:	ATEmix (): 2000 - 5000 mg/kg

Inhalation

Product: No data available.

Specified substance(s):

Molybdenum compound LC 50 (Rat): 34.4 mg/l

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene LC 50 (Rat): > 5.8 mg/l

Distillates (petroleum), hydrotreated heavy naphthenic LC 50 (Rat): > 5,000 mg/l
LC 50: > 5,000 mg/l

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

1-Decene, homopolymer, hydrogenated in vivo (Rabbit): Not irritant , 24 - 72 h Read-across based on grouping of substances (category approach), Weight of Evidence study
in vivo (Rabbit): Not classified as an Irritant , 24 - 72 h Read-across based on grouping of substances (category approach), Weight of Evidence study

N.N''-(Methylenedi-4, 1-phenylene)bis(N'-cyclohexylurea) in vivo (Rabbit): Not irritant , 24 - 72 h Experimental result, Key study

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene in vivo (Rabbit): Slightly irritating , 1 - 168 h Experimental result, Key study

Distillates (petroleum), hydrotreated heavy naphthenic in vivo (Rabbit): Not irritant , 72 h Experimental result, Supporting study

in vivo (Rabbit): Category 2 , 24 - 72 h Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

1-Decene, homopolymer, hydrogenated Rabbit, 48 h: Not irritant EU
Rabbit, 48 h: Not irritant EU
Rabbit, 72 h: Not irritant EU

Rabbit, 24 h: Not irritant EU

Rabbit, 24 h: Not irritant EU

Rabbit, 72 h: Not irritant EU

Rabbit, 24 - 72 h: Not irritant EU

Rabbit, 72 h: Not irritant EU

N.N''-(Methylenedi-4, 1-phenylene)bis(N'-cyclohexylurea) Bovine, eye: Slightly irritating OECD GHS

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Rabbit, 1 - 168 h: Not irritant EU Rabbit, 1 - 168 h: Not irritant EU Rabbit, 1 - 168 h: Not irritant EU
Distillates (petroleum), hydrotreated heavy naphthenic	Rabbit, 48 h: Not irritant EU Rabbit, 24 h: Not irritant EU Rabbit, 48 h: Not irritant EU Rabbit, 24 h: Not irritant EU

Respiratory or Skin Sensitization

Product: No data available.

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:

No carcinogenic components identified

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):

1-Decene, homopolymer, hydrogenated LC 50 (Rainbow Trout, 96 h): > 1,000 mg/l

Distillates (petroleum), hydrotreated heavy naphthenic LC 50 (Fish, 96 h): > 100 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

1-Decene, homopolymer, hydrogenated EC50 (Daphnia, 48 h): 190 mg/l

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene EC50 (Water Flea, 48 h): 51 mg/l

Distillates (petroleum), hydrotreated heavy naphthenic EC50 (Shrimp (Callianassa australiensis), 48 h): > 100 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

Distillates (petroleum), hydrotreated heavy naphthenic EC50 (Daphnia, 14 d): 0.058 mg/l
EC50 (21 d): 0.054 mg/l
EC50 (2 d): > 10,000 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

Distillates (petroleum), hydrotreated heavy naphthenic 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

1-Decene, homopolymer, No data available.

hydrogenated

N,N''-(Methylenedi-4, 1-

phenylene)bis(N'-

cyclohexylurea)

Alkyl polysulfide

Magnesium silicate

4,4'-Distearylureidodiphenyl

Molybdenum compound

Molybdenum compound
(insoluble)

Benzenamine, N-phenyl-,
reaction products with

2,4,4-trimethylpentene

Distillates (petroleum),
hydrotreated heavy

naphthenic

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

16. Other information, including date of preparation or last revision

Issue Date: 07/12/2024

Revision Information: 06/06/2024: ARGHS_MX

Version #: 1.1

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.