

## 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

<b>Inhalation:</b>	Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.
<b>Skin Contact:</b>	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.
<b>Eye contact:</b>	Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.
<b>Ingestion:</b>	Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

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

<b>Symptoms:</b>	No data available.
<b>Hazards:</b>	No data available.

#### **Indication of immediate medical attention and special treatment needed**

<b>Treatment:</b>	Get medical attention if symptoms occur.
-------------------	--

### **5. Fire-fighting measures**

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
------------------------------	---

#### **Suitable (and unsuitable) extinguishing media**

<b>Suitable extinguishing media:</b>	Water spray, fog, CO <sub>2</sub> , dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media:</b>	Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical:</b>	Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.
--	---

#### **Special protective equipment and precautions for fire-fighters**

<b>Special fire-fighting procedures:</b>	No data available.
<b>Special protective equipment for fire-fighters:</b>	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**

<b>Personal precautions, protective equipment and emergency procedures:</b>	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.
<b>For non-emergency personnel:</b>	No data available.
<b>For emergency responders:</b>	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/m3	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/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (03 2000)
	VLE-CT	10 mg/m3	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/m3	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/m3	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/m3	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/m3	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/m3	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/m3	Mexico. OELs. (NOM-010-STPS-2014 Chemical Pollutants at the Workplace; Assessment and Control), as amended (04 2014)
Distillates (petroleum),	VLE-PPT	5 mg/m3	Mexico. OELs. (NOM-010-STPS-2014

hydrotreated heavy  
naphthenic

Chemical Pollutants at the Workplace;  
Assessment and Control), as amended (04  
2014)

**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

<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>	No data available.

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

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

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

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

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

## Inhalation

<b>Product:</b>	No data available.
<b>Specified substance(s):</b>	
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

<b>Product:</b>	No data available.
-----------------	--------------------

## Skin Corrosion/Irritation

<b>Product:</b>	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

<b>Product:</b>	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 (*Callinassa 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, hydrogenated No data available.

N.N"-(Methylenedi-4, 1-phenylene)bis(N'-cyclohexylurea) No data available.

Alkyl polysulfide No data available.

Magnesium silicate No data available.

4,4'-Distearylureidodiphenyl No data available.

Molybdenum compound No data available.

Molybdenum compound (insoluble) No data available.

Benzenamine, N-phenyl-, reaction products with

2,4,4-trimethylpentene Distillates (petroleum), hydrotreated heavy naphthenic No data available.

**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.