



Material Safety Data Sheet

GR-132

1. Product and company identification

Product name	: GR-132
Material uses	: Petroleum lubricating grease
Supplier/Manufacturer	: LUBRIPLATE® Lubricants Co. 129 Lockwood St. Newark, NJ 07105 Telephone no.: 1-973-589-9150
Validation date	: 06/11/2012.
Prepared by	: Atrion International Inc.
<u>In case of emergency</u>	: CHEM-TEL 1-800-255-3924 (24 hour)

2. Hazards identification

Physical state	: Solid. [grease]
Color	: Beige.
Odor	: Mineral oil.
<u>Emergency overview</u>	
Signal word	: WARNING!
Hazard statements	: CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
Precautions	: Do not get in eyes. Avoid contact with skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
<u>Potential acute health effects</u>	
Inhalation	: Irritating to respiratory system.
Ingestion	: No known significant effects or critical hazards.
Skin	: Irritating to skin. Defatting to the skin.
Eyes	: Severely irritating to eyes. Risk of serious damage to eyes.
<u>Potential chronic health effects</u>	
Chronic effects	: Contains material that may cause target organ damage, based on animal data. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, eyes.
<u>Over-exposure signs/symptoms</u>	
Inhalation	:

2. Hazards identification

- Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Ingestion** : No specific data.
- Skin** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

United States

Name	CAS number	%
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	30-60
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	10-30
Zinc oxide	1314-13-2	10-30
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	5-10
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	5-10
Fatty acids, C16-18	67701-03-5	5-10
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	1-5
Quartz (SiO ₂)	14808-60-7	0.1-1

Canada

Name	CAS number	%
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	30-60
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	10-30
Zinc oxide	1314-13-2	10-30
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	5-10
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	5-10
Fatty acids, C16-18	67701-03-5	5-10
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	68649-42-3	1-5
Quartz (SiO ₂)	14808-60-7	0.1-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

4. First aid measures

- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
phosphorus oxides
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

Handling

- : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Distillates (petroleum), hydrotreated heavy naphthenic	<p>ACGIH TLV (United States, 1/2011). TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction</p> <p>NIOSH REL (United States, 6/2009). TWA: 5 mg/m³ 10 hour(s). Form: Mist STEL: 10 mg/m³ 15 minute(s). Form: Mist</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s).</p>
Distillates (petroleum), hydrotreated light naphthenic	<p>ACGIH TLV (United States, 1/2011). TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction</p> <p>NIOSH REL (United States, 6/2009). TWA: 5 mg/m³ 10 hour(s). Form: Mist STEL: 10 mg/m³ 15 minute(s). Form: Mist</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s).</p>
Zinc oxide	<p>NIOSH REL (United States, 6/2009). CELL: 15 mg/m³ Form: Dust TWA: 5 mg/m³ 10 hour(s). Form: Dust and fumes STEL: 10 mg/m³ 15 minute(s). Form: Fume</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hour(s). Form: Fume STEL: 10 mg/m³ 15 minute(s). Form: Fume TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 10 mg/m³ 8 hour(s). Form: Total dust</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s). Form: Fume TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³ 8 hour(s). Form: Total dust</p> <p>ACGIH TLV (United States, 1/2011). TWA: 2 mg/m³ 8 hour(s). Form: Respirable fraction STEL: 10 mg/m³ 15 minute(s). Form: Respirable fraction</p>
Distillates (petroleum), hydrotreated heavy paraffinic	<p>ACGIH TLV (United States, 1/2011). TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction</p> <p>NIOSH REL (United States, 6/2009). TWA: 5 mg/m³ 10 hour(s). Form: Mist STEL: 10 mg/m³ 15 minute(s). Form: Mist</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s).</p>
Distillates (petroleum), hydrotreated light paraffinic	<p>ACGIH TLV (United States, 1/2011). TWA: 5 mg/m³ 8 hour(s). Form: Inhalable fraction</p> <p>NIOSH REL (United States, 6/2009). TWA: 5 mg/m³ 10 hour(s). Form: Mist STEL: 10 mg/m³ 15 minute(s). Form: Mist</p> <p>OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s).</p>
Quartz (SiO ₂)	<p>OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO₂+5)</p>

8. Exposure controls/personal protection

TWA: 250 mppcf 8 hour(s). Form: Respirable
OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO₂+2)
 TWA: 10 mg/m³ 8 hour(s). Form: Respirable
OSHA PEL 1989 (United States, 3/1989).
 TWA: 0.1 mg/m³, (as quartz) 8 hour(s). Form: Respirable dust
ACGIH TLV (United States, 1/2011).
 TWA: 0.025 mg/m³ 8 hour(s). Form: Respirable fraction
NIOSH REL (United States, 6/2009).
 TWA: 0.05 mg/m³ 10 hour(s). Form: respirable dust
OSHA PEL Z3 (United States, 9/2005). Notes: 30/(%SiO₂+2)
 TWA: 30 mg/m³ 8 hour(s). Form: Total dust.

Canada

<u>Occupational exposure limits</u>		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
Zinc oxide	US ACGIH 1/2011	-	2	-	-	10	-	-	-	-	[a]
	AB 4/2009	-	2	-	-	10	-	-	-	-	[b]
	BC 9/2011	-	2	-	-	10	-	-	-	-	[b]
	ON 7/2010	-	2	-	-	10	-	-	-	-	[a]
Quartz (SiO ₂)	QC 9/2011	-	5	-	-	10	-	-	-	-	[c]
	US ACGIH 1/2011	-	0.025	-	-	-	-	-	-	-	[a]
	AB 4/2009	-	0.025	-	-	-	-	-	-	-	[d]
	BC 9/2011	-	0.025	-	-	-	-	-	-	-	[b]
	ON 7/2010	-	0.1	-	-	-	-	-	-	-	[e]
Distillates (petroleum), hydrotreated heavy naphthenic	QC 9/2011	-	0.1	-	-	-	-	-	-	-	[f]
	US ACGIH 1/2011	-	5	-	-	-	-	-	-	-	[g]
	ON 7/2010	-	5	-	-	10	-	-	-	-	[h]
Distillates (petroleum), hydrotreated light naphthenic	QC 9/2011	-	5	-	-	10	-	-	-	-	[h]
	US ACGIH 1/2011	-	5	-	-	-	-	-	-	-	[g]
	ON 7/2010	-	5	-	-	10	-	-	-	-	[h]
Distillates (petroleum), hydrotreated heavy paraffinic	QC 9/2011	-	5	-	-	10	-	-	-	-	[h]
	US ACGIH 1/2011	-	5	-	-	-	-	-	-	-	[g]
	ON 7/2010	-	5	-	-	10	-	-	-	-	[h]
Distillates (petroleum), hydrotreated light paraffinic	QC 9/2011	-	5	-	-	10	-	-	-	-	[h]
	US ACGIH 1/2011	-	5	-	-	-	-	-	-	-	[g]
	ON 7/2010	-	5	-	-	10	-	-	-	-	[h]
	QC 9/2011	-	5	-	-	10	-	-	-	-	[h]

Form: [a]Respirable fraction [b]Respirable [c]fume [d]Respirable particulate [e]Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. [f]Respirable dust. [g]Inhalable fraction [h]mist

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

8. Exposure controls/personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

- Physical state** : Solid. [grease]
- Flash point** : Open cup: 193°C (379.4°F) [Cleveland.]
- Auto-ignition temperature** : Not available.
- Flammable limits** : Lower: 0.9%
Upper: 7%
- Color** : Beige.
- Odor** : Mineral oil.
- pH** : Not available.
- Boiling/condensation point** : >288°C (>550.4°F)
- Melting/freezing point** : Not available.
- Relative density** : 0.94 [Water = 1]
- Density** : Not available.
- Vapor pressure** : <0.0013 kPa (<0.01 mm Hg) [20°C]
- Vapor density** : >5 [Air = 1]
- VOC content** : 0 lbs/gal (0 g/l)
- Odor threshold** : Not available.
- Evaporation rate** : <0.01 (butyl acetate = 1)
- Viscosity** : Kinematic (40°C (104°F)): 0.39 cm²/s (39 cSt)(Mineral oil.)
- Solubility** : Very slightly soluble in the following materials: hot water.
Insoluble in the following materials: cold water.
- LogK_{ow}** : Not available.
- Physical/chemical properties comments** : Mineral oil.:
Kinematic viscosity (100 °C (212 °F)): 200 SUS
Pour point: -40 °C (-40 °F)

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials and acids.
Incompatibility: Chlorine.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), hydrotreated light naphthenic	LC50 Inhalation Vapor	Rat	2180 mg/m ³	4 hours
Distillates (petroleum), hydrotreated light paraffinic	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapor	Rat	3900 mg/m ³	4 hours

Chronic toxicity

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Distillates (petroleum), hydrotreated light naphthenic	Skin - Moderate irritant	Rabbit	-	24 hours 0.5 Milliliters	-

Sensitizer

Not available.

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Distillates (petroleum), hydrotreated heavy naphthenic	A4	-	-	-	-	-
Distillates (petroleum), hydrotreated light naphthenic	A4	-	-	-	-	-
Zinc oxide	A4	-	-	-	-	-
Distillates (petroleum), hydrotreated heavy paraffinic	A4	-	-	-	-	-
Distillates (petroleum), hydrotreated light paraffinic	A4	-	-	-	-	-
Quartz (SiO ₂)	A2	1	-	+	Proven.	-

11. Toxicological information

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

12. Ecological information

Ecotoxicity : This material is very toxic to aquatic life with long lasting effects.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Zinc oxide	Acute EC50 0.042 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 1.1 to 2.5 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence/degradability

Not available.

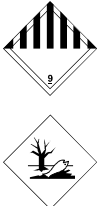
13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.







Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN3077	Environmentally hazardous substance, solid, n.o.s. (Zinc oxide). Marine pollutant	9	III		<p>Limited quantity Yes.</p> <p>Special provisions 8, 146, 335, B54, IB8, IP3, N20, T1, TP33</p>

14. Transport information

TDG Classification	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide). Marine pollutant	9	III	 	Explosive Limit and Limited Quantity Index 5 Special provisions 16
IMDG Class	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide). Marine pollutant (Zinc oxide)	9	III	 	Emergency schedules (EmS) F-A, S-F
IATA-DGR Class	UN3077	Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)	9	III	 	Passenger and Cargo Aircraft Quantity limitation: 400 kg Packaging instructions: 956 Cargo Aircraft Only Quantity limitation: 400 kg Packaging instructions: 956 Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y956

PG* : Packing group

15. Regulatory information

United States

HCS Classification

: Irritating material
Target organ effects

U.S. Federal regulations

: **TSCA 8(a) PAIR:** Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts
TSCA 8(a) IUR: Not determined
United States inventory (TSCA 8b): Not determined.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Distillates (petroleum), hydrotreated light naphthenic; Distillates (petroleum), hydrotreated heavy naphthenic; Fatty acids, C16-18; Zinc oxide; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Distillates (petroleum), hydrotreated heavy paraffinic: Delayed (chronic) health hazard;
Distillates (petroleum), hydrotreated light naphthenic: Immediate (acute) health hazard;
Distillates (petroleum), hydrotreated heavy naphthenic: Immediate (acute) health hazard;
Fatty acids, C16-18: Immediate (acute) health hazard; Zinc oxide: Immediate (acute) health hazard, Delayed (chronic) health hazard; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts: Immediate (acute) health hazard

Clean Water Act (CWA) 307: Zinc oxide; Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts; zinc bis(dibutyl)dithiocarbamate)

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

: Not listed

15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Zinc oxide Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	1314-13-2 68649-42-3	10-30 1-5
Supplier notification	Zinc oxide Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	1314-13-2 68649-42-3	10-30 1-5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT NAPHTHENIC; MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT PARAFFINIC; ZINC OXIDE FUME

New York : None of the components are listed.

New Jersey : The following components are listed: MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED); MINERAL OIL (UNTREATED and MILDLY TREATED); SILICA, QUARTZ; QUARTZ (SiO₂); ZINC OXIDE; ZINC compounds

Pennsylvania : The following components are listed: QUARTZ (SiO₂); ZINC OXIDE (ZNO); ZINC COMPOUNDS

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Quartz (SiO ₂)	Yes.	No.	No.	No.

Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

Canadian lists

Canadian NPRI : The following components are listed: Zinc; Zinc

CEPA Toxic substances : None of the components are listed.

Canada inventory : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

15. Regulatory information

- International lists** : Australia inventory (AICS): Not determined.
 China inventory (IECSC): Not determined.
 Japan inventory: Not determined.
 Korea inventory: Not determined.
 New Zealand Inventory of Chemicals (NZIoC): Not determined.
 Philippines inventory (PICCS): Not determined.
- Chemical Weapons Convention List Schedule I Chemicals** : Not listed
- Chemical Weapons Convention List Schedule II Chemicals** : Not listed
- Chemical Weapons Convention List Schedule III Chemicals** : Not listed

16. Other information

- Label requirements** : CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

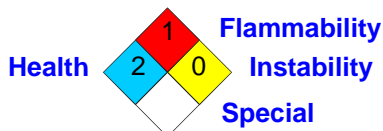
- Hazardous Material Information System (U.S.A.)** :

Health	*	2
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

- National Fire Protection Association (U.S.A.)** :



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

- Date of issue** : 06/11/2012.

16. Other information

Date of previous issue : No previous validation.

Version : 1

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.