

According to Work Health and Safety Regulations 2011 and National Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals

Version 1.1

Issue date: 23/10/2019

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SDS Record Number: CSSS-TCO-010-132698

### 1. Identification of the material and supplier

Material name:	GRK-A Grease
Product Code	60510220
Other means of identification:	Not available
Recommended use:	Suitable for the requirements of high adhesion and extreme pressure of open gear, is especially suitable for the type of gear transmission of mining industry
Restrictions on use:	-
Manufacturer:	
Supplier(Manufacturer):	SINOPEC LUBRICANT CO.,LTD
Address:	No. 6 Anning Zhuang West Road, Haidian District, Beijing, P.R.China
Contact person(E-mail):	csc.lube@sinopec.com
Telephone:	86-800-810-9886
Fax:	86-10-82410856
Emergency number:	86-800-810-9886
Australia Supplier(Manufacturer):	International Lubricant Distributors Pty. Ltd.
Address:	21 Logistics Boulevard, Kenwick, WA 6107, Australia
Contact person(E-mail):	-
Telephone:	-
Fax:	+61 8 9381 1788
Emergency number:	1300 558 939
New Zealand Supplier(Manufacturer):	MTS ENERGY LTD
Address:	PO BOX 302-133 North Harbour, Auckland 0751, New Zealand
Telephone:	+64 9 480 8921
Fax:	+64 9 480 8398
Emergency number:	0800 399 993 (24 Hrs)

### 2. Hazards identification

#### Australia:

Not classified as Hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC), Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

#### New Zealand:

Not classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

#### GHS label elements:

**Hazard Pictograms:** No hazard pictogram is used.

<b>Signal word:</b>	No signal word is used.
<b>Hazard statement:</b>	Not applicable.
<b>Precautionary statement:</b>	
<b>Prevention:</b>	Not applicable.
<b>Response:</b>	Not applicable.
<b>Storage:</b>	Not applicable.
<b>Disposal:</b>	Not applicable.
<b>Other hazards which do not result in classification:</b>	Not applicable.

### 3. Composition/information on ingredients

Components	CAS No.	Percent
Highly refined mineral oil (C15 - C50)	Mixture	60 - 95%weight
Carbon Black	1333-86-4	1-4%
Molybdenum sulfide	1317-33-5	1-4%

### 4. First aid measures

<b>Inhalation:</b>	No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.
<b>Skin:</b>	No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
<b>Eye:</b>	No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.
<b>Ingestion:</b>	No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
<b>Symptoms caused by exposure:</b>	Not available.
<b>Medical Attention and Special Treatment:</b>	Treat symptomatically.

### 5. Fire-fighting measures

<b>Suitable extinguishing media:</b>	Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
<b>Extinguishing media which must not be used for safety reasons:</b>	Not available.
<b>Specific hazards arising from the chemical:</b>	Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.
<b>Special protective equipment and precautions for fire fighters:</b>	This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

### 6. Accidental release measures

<b>Personal precautions, protective</b>	Avoid build up of vapor. Ensure sufficient supply of air. Avoid contact with eyes or skin.
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<b>equipment and emergency procedures:</b>	Contact with water - danger of sliding. Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. Evacuate all unprotected personnel. Eliminate all sources of ignition in vicinity of spilled material.
<b>Environmental precautions:</b>	If leakage occurs, dam up. Prevent surface and ground-water infiltration, as well as ground penetration. Prevent from entering drainage system. If accidental entry into drainage system occurs, inform responsible authorities.
<b>Methods and materials for containment and cleaning up:</b>	Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

## 7. Handling and storage

<b>Precautions for safe handling:</b>	Containers, even those that have been emptied, may contain explosive vapors. Do NOT cut, drill, grind, weld or perform similar operations on or near containers. Electrostatic discharge may be generated during pumping - this may result in fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment.
<b>Conditions for safe storage, including any incompatibilities:</b>	Do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.
<b>Storage regulation</b>	Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioned or disposed of properly.

## 8. Exposure controls/personal protection

**Control parameters – exposure** Not available

**standards, biological monitoring:**

**Exposure Levels**

**Occupational exposure limits:**

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)			
Components	Type	Value	
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	
Molybdenum sulfide (CAS 1317-33-5)	TWA	10 mg/m3	
Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)			
Components	Type	Value	
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	
Molybdenum sulfide (CAS 1317-33-5)	TWA	10 mg/m3	
US. ACGIH Threshold Limit Values			
Components	Type	Value	Form
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Molybdenum sulfide (CAS 1317-33-5)	TWA	3 mg/m3	Respirable fraction.

		10 mg/m3	Inhalable fraction.
<b>UK. EH40 Workplace Exposure Limits (WELs)</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	
Carbon Black (CAS 1333-86-4)	STEL TWA	7 mg/m3 3.5 mg/m3	
Molybdenum sulfide (CAS 1317-33-5)	STEL TWA	20 mg/m3 10 mg/m3	
<b>New Zealand. WES. (Workplace Exposure Standards)</b>			
<b>Components</b>	<b>Type</b>	<b>Value</b>	
Carbon Black (CAS 1333-86-4)	TWA	3 mg/m3	
Molybdenum sulfide (CAS 1317-33-5)	TWA	10 mg/m3	

**Biological limit values**

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

**Appropriate engineering controls:**

Provide sufficient ventilation to keep airborne levels as low as possible. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

**Personal protective equipment:**

**Eye/face protection:**

No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin protection:**

No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber.

**Respiratory protection:**

No respiratory protection is normally required. No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material..If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection:**

Suggested materials for protective gloves include: Neoprene, Nitrile Rubber.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Appearance:**

**Physical state:** Liquid  
**Form:** Liquid  
**Color:** Light to Brown

**Odor:** Petroleum odor

**Odour threshold:** Not available

**PH:** Not available

**Melting point/Freezing point:** Not available

**Boiling point and boiling range:** Not available

**Flash point:** (Cleveland Open Cup) 220 °C (428 °F) Minimum

**Evaporation rate:** Not available

**Flammability (solid, gas) :** Not available

Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	<0.01 mmHg Maximum @ 37.8 °C (100 °F)
Vapor density:	>1 Minimum
Density:	0.89 kg/l @ 15°C (59°F) (Typical)
Solubility :	Soluble in hydrocarbon solvents; insoluble in water.
Partition coefficient (n-octanol/water) :	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic:	9.3 mm <sup>2</sup> /s @ 100°C (212°F) Minimum
Specific heat value:	Not available
Particle size:	Not available
Volatile organic compounds content:	Not available
% volatile:	Not available
Saturated vapour concentration:	Not available
Release of invisible flammable vapours and gases:	Not available
<b>Additional parameters</b>	
Shape and aspect ratio:	Not available
Crystallinity:	Not available
Dustiness:	Not available
Surface area:	Not available
Degree of aggregation or agglomeration:	Not available
Ionisation (redox potential):	Not available
Biodurability or biopersistence:	Not available

## 10. Stability and reactivity

Reactivity:	Stable under recommended transport or storage conditions.
Chemical stability:	Stable under normal temperatures and pressures.
Possibility of hazardous reactions:	Contact with strong oxidants.
Conditions to avoid:	Incompatible materials.
Incompatible materials:	Strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous decomposition products:	Smoke, carbon monoxide, carbon dioxide and other decomposition products.

## 11. Toxicological information

<b>Toxicological data:</b>	
<b>Acute toxicity:</b>	
<b>Carbon Black (CAS#1333-86-4)</b>	
LD50(Oral, Rat):	> 8000 mg/kg bw
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	No data available.
Serious eye damage/irritation:	No data available.
Respiratory or skin sensitization:	No data available.
Germ cell mutagenicity:	No data available.
Carcinogenicity:	No data available.

<b>Reproductive toxicity:</b>	No data available.
<b>STOT- single exposure:</b>	No data available.
<b>STOT-repeated exposure:</b>	No data available.
<b>Aspiration hazard:</b>	No data available.
<b>Other information</b>	This product has no known adverse effect on human health.
<b>Information on routes of exposure</b>	No data available.
<b>Symptoms related to exposure</b>	No data available.
<b>Numerical measures of toxicity</b>	No data available.
<b>Immediate, delayed and chronic health effects from exposure</b>	No data available.

## 12. Ecological information

### Ecotoxicity:

Carbon Black (CAS#1333-86-4)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	> 10 000 mg/L	72h	Algae	OECD 201	N/A	N/A

<b>Persistence and degradability:</b>	This material is not expected to be readily biodegradable.
<b>Bioaccumulative potential:</b>	Not available.
<b>Mobility in soil:</b>	Not available.
<b>Other adverse effects:</b>	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

<b>Safe handling and disposal methods:</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
<b>Disposal of any contaminated packaging:</b>	<p><b>Australia:</b></p> <p>The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.</p> <p><b>New Zealand:</b></p> <p><b>Product Disposal</b></p> <p>Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. In this specific case the product is a combustible substance and therefore can be sent to an approved high temperature incineration plant for disposal. Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed. Do not dispose into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected. In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website</p>

under specific group standards.

## Container Disposal

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service. Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous. In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

## 14. Transport information

### Australia:

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

### New Zealand:

Not classified as Dangerous Goods for transport according to the NZS 5433:2012 Transport of Dangerous Goods on Land.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

### U.N. Number

None Allocated

### Proper Shipping Name

None Allocated

### DG Class

None Allocated

### Packing Group

None Allocated

## 15. Regulatory information

### Safety, health and environmental regulations specific for the product in question

#### Australia

##### National regulations

**Australia Medicines & Poisons Appendix A/B/D/E/F/G/H/I/J/K / Australia Medicines & Poisons Schedule 2/3/4/5/6/7/8/9/10**

Poisons schedule number not allocated.

##### High Volume Industrial Chemicals (HVIC)

Carbon Black (CAS 1333-86-4) 10000 - 99999 TONNES See the regulation for additional information.

##### Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

##### National Pollutant Inventory (NPI) substance reporting list

Not listed.

##### Prohibited Carcinogenic Substances

Not regulated.

## Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

## Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

## Restricted Carcinogenic Substances

Not regulated.

## International regulations

**Stockholm Convention** Not applicable.

**Rotterdam Convention** Not applicable.

**Kyoto protocol** Not applicable.

**Montreal Protocol** Not applicable.

**Basel Convention** Not applicable.

## New Zealand

## Applicable regulations

## New Zealand Inventory of Chemicals (NZIoC): Registration status

Carbon Black (CAS 1333-86-4) HSNO Approved

Molybdenum Sulfide (CAS 1317-33-5) May be used as a single component chemical under an appropriate group standard

## Inventory status:

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Not available.
Canada	Domestic Substances List (DSL)	Not available.
Canada	Non-Domestic Substances List (NDSL)	Not available.
China	Inventory of Existing Chemical Substances in China (IECSC)	Not available.
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Not available.
Europe	European List of Notified Chemical Substances (ELINCS)	Not available.
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Not available.
Korea	Existing Chemicals List (ECL)	Not available.
New Zealand	New Zealand Inventory	Not available.
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Not available.
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Not available.

\*A "Yes" indicates this product complies 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

<b>Indication of changes:</b>	Version 1.1
<b>Date of preparation or review:</b>	2022.05.23
<b>Key abbreviations or acronyms used:</b>	CAS: Chemical Abstracts Service LC50: Lethal Concentration 50 EC50: Concentration for 50% of maximal effect LD50: Lethal dose 50%



## reference

MAC: maximum allowable concentration, MAC)

PC-TWA: permissible concentration-time weighted average

PC-STEL: permissible concentration-short term exposure limit

### **Australia:**

Standard for the Uniform Scheduling of Medicines and Poisons.

Approved criteria for classifying hazardous substances [NOHSC: 1008(2004)].

National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC: 2011(2003)].

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants, Safe work Australia.

American Conference of Industrial Hygienists (ACGIH)

### **New Zealand:**

Workplace Exposure Standards and Biological Exposure Indices

Transport of Dangerous goods on land NZS 5433.

Preparation of Safety Data Sheets - Approved Code of Practice Under the HSNO Act 1996 (HSNO CoP 8-1 0906).

Assigning a hazardous substance to a group standard.

American Conference of Industrial Hygienists (ACGIH)