

KLONDIKE FOOD-GRADE EP-2 Extreme Pressure Grease

SECTION 1: Identification

1.1 Product identifier

Trade name:

KLONDIKE FOOD-GRADE EP-2 Extreme Pressure Grease

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Lubricant
	General use

1.3 Details of the supplier of the safety data sheet

KLONDIKE Lubricants Corporation 3078 275th Street Langley, BC V4W 3L4 Canada General Information 1-877-293-4691 www.klondikelubricants.com info@klondikelubricants.com

1.4 Emergency telephone number

Emergency information service (ChemTel, 24 hrs.)

+01-813-248-0585 +1 (800) 255-3924 (USA & Canada)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to GHS This mixture does not meet the criteria for classification.

2.2 Label elements

Labeling

not required

2.3 Other hazards

Results of PBT and vPvB assessment This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS		
Name of substance	Identifier	Wt%
Limestone	CAS No 471-34-1 7440-70-2	1-<5

Hazardous ingredients

All ingredients are listed or exempt from listing. Not all ingredients are listed.

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first- aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Water, Foam, ABC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Take up mechanically

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

- Storage temperature

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 **Control parameters**

8.1.1

Occupational exposure limit values (Workplace Exposure Limits)

Components., Hazardous combustion products.

Occup	Occupational exposure limit values (Workplace Exposure Limits)										
Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/ m³]	STEL [ppm]	STEL [mg/ m³]	Ceil- ing-C [ppm]	Ceil- ing-C [mg/ m³]	Nota tion	Sourc e
CA	silica, amorph- ous, silica gel	112926- 00-8	PEV/ VEA		6					noAs b_less 1Sil	Regu- lation OHS
CA	silica, amorph- ous - precipit- ated and gel	112926- 00-8	OEL (BC)		4					i	"BC Regu- lation"
CA	silica, amorph- ous - precipit- ated and gel	112926- 00-8	OEL (BC)		1.5					r	"BC Regu- lation"
CA	zinc oxide	1314-13- 2	PEV/ VEA		10					dust, noAs b_less 1Sil	Regu- lation OHS
CA	zinc oxide	1314-13- 2	PEV/ VEA		5		10			fume, noAs b_less 1Sil	Regu- lation OHS
CA	zinc oxide	1314-13- 2	OEL (AB)		2		10			r	OHS Code
CA	zinc oxide	1314-13- 2	OEL (BC)		2		10			r	"BC Regu- lation"
CA	calcium carbon- ate	471-34-1	PEV/ VEA		10						Regu- lation OHS
CA	Calcium carbon- ate (Aragonite, Calcite, Marble, Vaterite)	471-34-1	OEL (AB)		10						OHS Code
CA	mineral oil	8042-47- 5	OEL (AB)		5		10			mist	OHS Code

1:..... - I. . _ Limit

Notation Ceiling-C

ceiling value is a limit value above which exposure should not occur

Notation	
dust	as dust
fume	as fume
i	inhalable fraction
mist	as mists
noAsb_less1	S contains no asbestos and less than 1% free crystalline silica
il	
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time- weighted average (unless otherwise specified

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid
Color	off-white
Odor	slight odor

Other safety parameters

pH (value)	not applicable
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	≥177 °C non-flammable
Evaporation rate	not determined
Flammability (solid, gas)	this material is combustible, but will not ignite readily
Explosion limits of dust clouds	not determined
Vapor pressure	<0.01 kPa at 20 °C
Density	0.86 – 0.9 ^g / _{cm³}
Vapor density	this information is not available
Solubility(ies)	not determined
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	383 °C
Viscosity	not relevant (solid matter)
Explosive properties	not explosive (GHS of the United Nations, annex 4)

9.2 Other information

Oxidizing properties

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

none

there is no additional information

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

This mixture does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture					
Name of substance	CAS No	Exposure route	ATE		
Limestone	471-34-1 7440-70-2	inhalation: dust/mist	3 ^{mg} / _l /4h		

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life.

Aquatic toxicity (acu	Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time	
Limestone	471-34-1 7440-70-2	EC50	>14 ^{mg} /l	algae	72 h	

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment Data are not available.

12.6 Other adverse effects

Endocrine disrupting potential None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	UN number	not subject to transport regulations	
14.2	UN proper shipping name	not assigned	
14.3	Transport hazard class(es)	not assigned	
14.4	Packing group	not assigned	
14.5	Environmental hazards	non-environmentally hazardous acc. to the danger- ous goods regulations	

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport information - National regulations - Additional information (UN RTDG) not assigned

International Maritime Dangerous Goods Code (IMDG) Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

National regulations (United States)

Toxic Substance Control Act (TSCA)all ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings					
Name of substance CAS No Remarks Effective date					
Zinc oxide	7440-66-6	fume or dust	1986-12-31		

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
Zinc oxide	7440-66-6	[4]	2	1000 (454)

Legend

[4]

"2" indicates that the source is section 307(a) of the Clean Water Act

No reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is lar-ger than 100 micrometers (0.004 inches).

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
Limestone		А	dust

Legend

American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physic-al Agents and Biological Exposure Indices for 1992-93", available from ACGIH If the substance poses an airborne particulate exposure hazard, the substance is followed by the word "dust." Ā

dust

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Limestone	7440-70-2		R2

Legend

R2 Reactive - Second Degree

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
CALCIUM	7440-70-2	

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and **Toxic Enforcement Act of 1987**

none of the ingredients are listed

Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

VOC content

Regulated Volatile Organic Compounds (VOC-EPA): Regulated Volatile Organic Compounds (VOC-Cal ARB):

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

HEALTH /	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

Category	Rating	Description
Chronic	/	none
Health	0	no significant risk to health
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with wa- ter, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).



Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	0	material that, under emergency conditions, would offer no hazard beyond that of or- dinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National regulations (Canada)

Domestic Substances List (DSL) All ingredients are listed.

National inventories

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	all ingredients are listed
CA	NDSL	none of the ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	none of the ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

Legend

Legena	
AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
"BC Regulation"	OHS Regulation: Section 5.48 (British Columbia)
ATE	Acute Toxicity Estimate
Cal ARB	California Air Resources Board
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
ΙΑΤΑ	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OHS Code	Occupational Health and Safety Code: Occupational exposure limits for chemical substances (Alberta)
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
Regulation OHS	Regulation respecting occupational health and safety: Permissible exposure values for airborne contamin- ants (Quebec)
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Hazardous Products Regulations (HPR).

UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture. Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.