

Product Name: CAT EXTREME APPLICATION GREASE 2
Revision Date: 26 Oct 2020
Page 1 of 10

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

As of the revision date above, this (M)SDS meets the regulations in New Zealand.

PRODUCT

Product Name: CAT EXTREME APPLICATION GREASE 2
Product Description: Base Oil and Additives
Product Code: 2020A0109040, 531525-00
Intended Use: Grease

COMPANY IDENTIFICATION

Supplier: Terra Cat, Terra Industrial New Zealand Ltd
16 Branston Street
P.O. Box 16-168
Christchurch 8441 New Zealand

24 Hour Emergency Telephone	111
National Poison Control Centre	0800 764 766
Product Technical Information	0800 933 939
General Contact Number	03 983 2333
SDS Internet Address	terraecat.co.nz

SECTION 2 HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: HAZARDOUS SUBSTANCE. NON-DANGEROUS GOOD.

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

6.3B 6.8B
9.1D 9.1C

Skin irritation: Category 3. Reproductive toxicant (developmental): Category 2. Reproductive toxicant (fertility): Category 2.

Acute aquatic toxicant: Category 3. Chronic aquatic toxicant: Category 3.

LABEL:

Symbol:



Signal Word: Warning

Hazard Statements:

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 2 of 10

Health: H361: Suspected of damaging fertility or the unborn child. H316: Causes mild skin irritation.
 Environmental: H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements:

Prevention: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P273: Avoid release to the environment. P280: Wear protective gloves and clothing.

Response: P308 + P313: IF exposed or concerned: Get medical advice/attention. P332 + P313: If skin irritation occurs: Get medical advice/attention.

Storage: P405: Store locked up.

Disposal: P501: Dispose of contents and container in accordance with local regulations.

Contains: LONG-CHAIN ALKENYLAMIDE

Other hazard information:

PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Mildly irritating to skin. May be irritating to the eyes, nose, throat, and lungs.

ENVIRONMENTAL HAZARDS

No additional hazards.

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3	COMPOSITION / INFORMATION ON INGREDIENTS
------------------	---

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
9-OCTADECENOIC ACID (Z)-, REACTION PRODUCTS WITH DIHYDRO-3-(DODECENYL)-2,5-FURANDIONE AND TRIETHYLENETETRAMINE	68478-81-9	0.1 - < 1%	H315, H361(D), H361(F), H413
AMINES, C12-14-ALKYL, ISOCTYL PHOSPHATES	68187-67-7	0.1 - < 1%	H302, H312, H314(1C), H400(M factor 1), H410(M factor 1)
BENZENE SULFONIC ACIDS, C10-16 ALKYL DERIVS., CA SALTS	68584-23-6	1 - < 5%	H317
BENZENESULFONIC ACID, MONO-C16-24-ALKYL DERIVS. CALCIUM SALTS	70024-69-0	1 - < 5%	H317
CALCIUM DODECYLBENZENE SULFONATE	26264-06-2	5 - < 10%	H302, H315, H318, H401, H412
CALCIUM HYDROXIDE	1305-62-0	1 - < 5%	H315, H318, H335
CARBONIC ACID, CALCIUM SALT (1:1)	471-34-1	10 - < 20%	None

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 3 of 10

MOLYBDENUM (IV) SULPHIDE	1317-33-5	5 - < 10%	None
SULFONIC ACIDS, PETROLEUM, CALCIUM SALTS	61789-86-4	1 - < 5%	H317

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Other ingredients determined not to be hazardous.

SECTION 4 FIRST AID MEASURES

INHALATION

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >200°C (392°F) [EST. FOR OIL, ASTM D-92 (COC)]

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 4 of 10

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Scrape up spilled material with shovels into a suitable container for recycle or disposal.

Water Spill: Stop leak if you can do so without risk. Warn other shipping. Material will sink. Consult an expert. No immediate action required.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7	HANDLING AND STORAGE
------------------	-----------------------------

HANDLING

Avoid all personal contact. Prevent small spills and leakage to avoid slip hazard.

Static Accumulator: This material is not a static accumulator.

STORAGE

Do not store in open or unlabelled containers.

SECTION 8	EXPOSURE CONTROLS / PERSONAL PROTECTION
------------------	--

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit/Standard	Note	Source	Year
CALCIUM HYDROXIDE		TWA 5 mg/m3		New Zealand OELs	2019

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 5 of 10

CALCIUM HYDROXIDE		TWA	5 mg/m ³			ACGIH	2020
CARBONIC ACID, CALCIUM SALT (1:1)		TWA	10 mg/m ³			New Zealand OELs	2019
MOLYBDENUM (IV) SULPHIDE [as Mo]		TWA	10 mg/m ³			New Zealand OELs	2019
MOLYBDENUM (IV) SULPHIDE [as Mo]	Inhalable fraction.	TWA	10 mg/m ³			ACGIH	2020
MOLYBDENUM (IV) SULPHIDE [as Mo]	Respirable fraction.	TWA	3 mg/m ³			ACGIH	2020

Biological limits

No biological limits allocated.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.

Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. Nitrile, Viton

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 6 of 10

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:
Chemical/oil resistant clothing is recommended.

Specific 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 and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
------------------	---

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Solid
Form: Semi-fluid
Colour: Dark Gray
Odour: Characteristic
Odour Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15.6 °C): 1.042
Flammability (Solid, Gas): N/A
Flash Point [Method]: >200°C (392°F) [EST. FOR OIL, ASTM D-92 (COC)]
Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D
Autoignition Temperature: N/D
Boiling Point / Range: > 316°C (600°F)
Decomposition Temperature: N/D
Vapour Density (Air = 1): N/D
Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: 150 cSt (150 mm²/sec) at 40°C
Molecular Weight: N/D
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/D
DMSO Extract (mineral oil only), IP-346: < 3 %wt

NOTE: Most physical properties above are for the oil component in the material.

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 7 of 10

SECTION 10	STABILITY AND REACTIVITY
-------------------	---------------------------------

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidisers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11	TOXICOLOGICAL INFORMATION
-------------------	----------------------------------

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Mildly irritating to skin with prolonged exposure. Based on assessment of the components.
Eye	
Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

OTHER HEALTH EFFECTS FROM SHORT AND LONG TERM EXPOSURE

Anticipated health effects from sub-chronic, chronic, respiratory or skin sensitization, mutagenicity, reproductive toxicity, carcinogenicity, target organ toxicity (single exposure or repeated exposure), aspiration toxicity and other effects based on human experience and/or experimental data.

For the product itself:

Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components, this formulation, or similar formulations.

Contains:

An ingredient or ingredients that are classified as a reproductive toxicant.

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals.

Product Name: CAT EXTREME APPLICATION GREASE 2
 Revision Date: 26 Oct 2020
 Page 9 of 10

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15	REGULATORY INFORMATION
-------------------	-------------------------------

Material is Hazardous as defined by the Hazardous Substances (Minimum Degree of Hazard) Regulation 2001.
ERMA Approval Code: HSR002606

Product is not regulated according to New Zealand Land Transport Rule.

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories (May contain substance(s) subject to notification to the EPA Active TSCA inventory prior to import to USA):
 AIIIC, ENCS, IECSC, ISHL, KECI, PICCS, TCSI, TSCA

Special Cases:

Inventory	Status
NDSL	Restrictions Apply

SECTION 16	OTHER INFORMATION
-------------------	--------------------------

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

- H302: Harmful if swallowed; Acute Tox Oral, Cat 4
- H312: Harmful in contact with skin; Acute Tox Dermal, Cat 4
- H314(1C): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1C
- H315: Causes skin irritation; Skin Corr/Irritation, Cat 2
- H317: May cause allergic skin reaction; Skin Sensitisation, Cat 1
- H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1
- H335: May cause respiratory irritation; Target Organ Single, Resp Irr
- H361: Suspected of damaging fertility or the unborn child.; Repro Tox, Cat 2
- H361(D): Suspected of damaging the unborn child; Repro Tox, Cat 2 (Develop)
- H361(F): Suspected of damaging fertility; Repro Tox, Cat 2 (Fertility)
- H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
- H401: Toxic to aquatic life; Acute Env Tox, Cat 2
- H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1
- H412: Harmful to aquatic life with long lasting effects; Chronic Env Tox, Cat 3
- H413: May cause long lasting harmful effects to aquatic life; Chronic Env Tox, Cat 4

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

- Section 01: Company Contact Methods information was modified.
- Section 16: HCode Key information was modified.

Product Name: CAT EXTREME APPLICATION GREASE 2

Revision Date: 26 Oct 2020

Page 10 of 10

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

DGN: 7129403DNZ (1028770)

End of (M)SDS