VULTREX TM/MC ROCK DRILL EP000

000003001073

PETRO CANADA

| 00000001010 | | |
|--|--|-------------------------|
| Version 2.4 | Revision Date 2021/05/11 | Print Date 2021/06/03 |
| SECTION 1. IDENTIFICATION | | |
| Product name | VULTREX TM/MC ROCK DRILL EP00 | 0 |
| Product code | VULRDP17, VULRD, VULRDKGL | |
| Manufacturer or supplier's de Telephone | tails Petro-Canada America Lubricants Ll 2828 N. Harwood St., Suite 1300 Dallas TX 75201 United States 1-214-871-3555 | -C |
| Emergency telephone numbe | r | |
| Emergency telephone num- | CHEMTREC: 1-800-424-9300; Poison Control Centre: Consult local emergency number(s). | telephone directory for |

| Recommended use of the chemical and restrictions on use | | | | |
|---|---|---|--|--|
| Recommended use | : | Vultrex Rock Drill EP000 grease is a semi-fluid grease spe- cially formulated for mistfree operation when used in air- operated rock drills and similar mining equipment. | | |
| Prepared by | : | Product Safety: +1 905-491-0565 | | |

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

| IARC | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or con- firmed human carcinogen by IARC. |
|------|--|
| OSHA | No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens. |
| NTP | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

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| Chemical name | CAS-No. | Concentration (% w/w) |
|--|------------|-----------------------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high- viscosity; Baseoil — unspecified | 72623-85-9 | 70 - 90 |
| Residual oils (petroleum), solvent deasphalted; Baseoil — unspecified | 64741-95-3 | 5 - 10 |
| Distillates (petroleum), solvent- dewaxed heavy paraffinic; Baseoil — unspecified | 64742-65-0 | 5 - 10 |
| zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) | 4259-15-8 | 1 - 5 |
| Amines, C12-14-alkyl, C6-10-alkyl phosphates | 68603-55-4 | 0.1 - 1 |

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

| lf inhaled | : | Move to fresh air. Artificial respiration and/or oxygen may be necessary. Seek medical advice. |
|---|---|--|
| In case of 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 skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Seek medical advice. In the event of a known, or potential, high pressure injection injury, worker should obtain immediate medical evaluation. |
| In case of eye contact | : | Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention. |
| If swallowed | : | Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physi- cian or poison control center. Never give anything by mouth to an unconscious person. Seek medical advice. |
| Most important symptoms and effects, both acute and delayed | : | First aider needs to protect himself. |

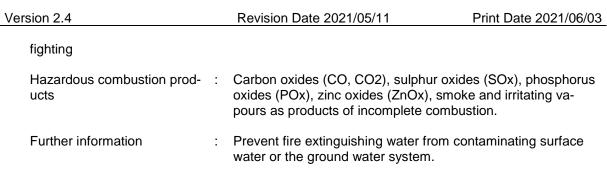
SECTION 5. FIREFIGHTING MEASURES

| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. |
|--------------------------------|---|--|
| Unsuitable extinguishing media | : | No information available. |
| Specific hazards during fire- | : | Cool closed containers exposed to fire with water spray. |



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SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protec- : tive equipment and emer- gency procedures | Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions. Mark the contaminated area with signs and prevent access to unauthorized personnel. Only qualified personnel equipped with suitable protective equipment may intervene. |
|---|---|
| Environmental precautions : | Do not allow uncontrolled discharge of product into the envi- ronment. |
| Methods and materials for : containment and cleaning up | Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities. |

SECTION 7. HANDLING AND STORAGE

| Advice on protection against fire and explosion | : | None known. |
|---|---|---|
| Advice on safe handling | : | For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap- plication area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use. |
| Conditions for safe storage | : | Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sun- light. |



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parame- ters / Permissible concentration | Basis |
|--|------------|--|--|-----------|
| Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity; Baseoil — unspecified | 72623-85-9 | TWA (Mist) | 5 mg/m3 | OSHA Z-1 |
| | | TWA (Inhal- able particu- late matter) | 5 mg/m3 | ACGIH |
| | | TWA (Mist) | 5 mg/m3 | OSHA P0 |
| | | TWA (Mist) | 5 mg/m3 | NIOSH REL |
| | | STEL (Mist) | 10 mg/m3 | NIOSH REL |
| Residual oils (petroleum), sol- vent deasphalted; Baseoil — unspecified | 64741-95-3 | TWA (Inhal- able particu- late matter) | 5 mg/m3 | ACGIH |
| Distillates (petroleum), solvent- dewaxed heavy paraffinic; Baseoil — unspecified | 64742-65-0 | TWA (Mist) | 5 mg/m3 | OSHA Z-1 |
| | | TWA (Inhal- able particu- late matter) | 5 mg/m3 | ACGIH |
| | | TWA (Mist) | 5 mg/m3 | OSHA P0 |
| | | TWA (Mist) | 5 mg/m3 | NIOSH REL |
| | | STEL (Mist) | 10 mg/m3 | NIOSH REL |

Engineering measures

No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

:

| Respiratory protection | : | Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. 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. |
|-----------------------------|---|---|
| Filter type | : | organic vapour filter |
| Hand protection Material | : | neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R). |
| Remarks | : | 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. |
| Eye protection | : | Wear face-shield and protective suit for abnormal processing problems. |



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| Skin and body protection | : | Choose body protection in relation to its type, to the concen- tration and amount of dangerous substances, and to the spe- cific work-place. | |
| Protective measures | : | Wash contaminated clothing before re-use. | |
| Hygiene measures | : | Remove and wash contaminated clothing and gloves, includ- ing the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling. | |
| SECTION 9. PHYSICAL AND CH | EMI | CAL PROPERTIES | |
| Appearance | : | Buttery, smooth, semi-solid | |
| Colour | : | dark amber | |
| Odour | : | Mild grease like. | |
| Odour Threshold | : | No data available | |
| рН | : | No data available | |
| Pour point | : | -15 °C (5 °F) Base Fluid Blend | |
| Boiling point/boiling range | - | No data available | |
| Flash point | : | 271 °C (520 °F) Method: Cleveland open cup Base Fluid Blend | |
| Fire Point | : | 294 °C (561 °F) Base Fluid Blend | |
| Evaporation rate | : | No data available | |
| Flammability | : | Remarks: Low fire hazard. This material must be heated be- fore ignition will occur. | |
| Auto-Ignition Temperature | : | No data available | |
| Upper explosion limit / Upper flammability limit | : | No data available | |
| Lower explosion limit / Lower flammability limit | : | No data available | |
| Vapour pressure | : | No data available | |
| Relative vapour density | : | No data available | |

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| Relative density | : | No data available | |
| Density | : | 0.8862 kg/l (59 °F / 15 °C) | |
| Solubility(ies) Water solubility | : | insoluble | |
| Partition coefficient: n- octanol/water | : | No data available | |
| Viscosity Viscosity, kinematic | : | 129.4 cSt (40 °C / 104 °F) Base Fluid Blend 13.1 cSt (100 °C / 212 °F) Base Fluid Blend | |
| Explosive properties | : | Do not pressurise, cut, weld, braze, so pose containers to heat or sources of | |

SECTION 10. STABILITY AND REACTIVITY

| Possibility of hazardous reac- tions | : | Hazardous polymerisation does not occur. Stable under normal conditions. |
|---|---|---|
| Conditions to avoid | : | No data available |
| Incompatible materials | : | Reactive with oxidising agents, acids and alkalis. |
| Hazardous decomposition products | : | May release COx, NOx, SOx, POx, H2S, metal oxides, alde- hydes, alkyl mercaptans, methacrylate monomers, smoke and irritating vapours when heated to decomposition. |

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| Information on likely routes of | : | Eye contact |
|---------------------------------|---|--------------|
| exposure | | Ingestion |
| | | Inhalation |
| | | Skin contact |

Acute toxicity

Product:

| Acute oral toxicity | : | Remarks: No data available |
|---------------------------|---|----------------------------|
| Acute inhalation toxicity | : | Remarks: No data available |
| Acute dermal toxicity | : | Remarks: No data available |

Components:

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity; Baseoil — unspecified:

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| Acute oral toxicity | : | LD50 (Rat): > 5,000 mg/kg, | |
| Acute inhalation toxicity | : | LC50 (Rat): > 5.2 mg/l Exposure time: 4 h Test atmosphere: dust/mist | |
| Acute dermal toxicity | : | LD50 (Rabbit): > 2,000 mg/kg, | |
| Distillates (petroleum), solution Acute oral toxicity | | -dewaxed heavy paraffinic; Baseoi LD50 (Rat): > 5,000 mg/kg, | I — unspecified: |
| Acute dermal toxicity | : | LD50 (Rabbit): > 2,000 mg/kg, | |
| Skin corrosion/irritation | | | |
| Product: | | | |
| Remarks | : | No data available | |
| Serious eye damage/eye in | ritati | on | |
| Product: | | | |
| Remarks | : | No data available | |
| Respiratory or skin sensiti | satio | on | |
| No data available | | | |
| Germ cell mutagenicity No data available | | | |
| Carcinogenicity | | | |
| No data available | | | |
| Reproductive toxicity | | | |
| No data available | | | |
| STOT - single exposure | | | |
| | | | |
| No data available | | | |
| No data available STOT - repeated exposure | | | |

Ecotoxicity

| Product: | | | |
|--|-----|----------------------------|---|
| Toxicity to fish | : | Remarks: No data available | |
| Toxicity to daphnia and other aquatic invertebrates | : | Remarks: No data available | |
| Toxicity to algae/aquatic plants | : | Remarks: No data available | |
| Internet: lubricants.petro-canada.com/s Trademarks are owned or used under license. | sds | | F |

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| Toxicity to microorganisms : | Remarks: No data available | |
| Persistence and degradability | | |
| <u>Product:</u> Biodegradability : | Remarks: No data available | |
| Bioaccumulative potential No data available | | |
| Mobility in soil No data available | | |
| Other adverse effects No data available | | |
| SECTION 13. DISPOSAL CONSIDE | RATIONS | |

Disposal methods

| Waste from residues | The product should not be allowed to enter drains, water courses or the soil. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labelled prior to recycling or disposal. Send to a licensed waste management company. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal. |
|---------------------|--|
| | or the person responsible for waste disposal. |

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

National Regulations

49 CFR Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

California Prop. 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. The chemicals include: 71-43-2

benzene

The components of this product are reported in the following inventories:

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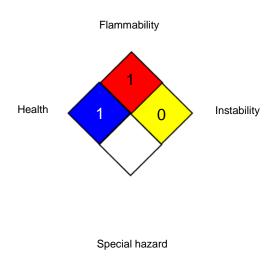
| PETRO-CANADA | |
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|-------------|---|--|-----------------------|
| DSL | : | On the inventory, or in compliance | e with the inventory |
| TSCA | : | All chemical substances in this particular to the particular of the particular of the particular text of the parti | |
| IECSC | : | On the inventory, or in compliance | e with the inventory |

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

| ACGIH NIOSH REL OSHA P0 | : | USA. ACGIH Threshold Limit Values (TLV) USA. NIOSH Recommended Exposure Limits USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
|---------------------------------|---|---|
| OSHA Z-1 | : | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim- its for Air Contaminants |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL / STEL | : | STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday |
| OSHA P0 / TWA OSHA Z-1 / TWA | | 8-hour time weighted average 8-hour time weighted average |

AICS - Australian Inventory of Chemical Substances; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); Ecx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; Elx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical

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Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG -Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL -No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

| For Copy of SDS | : | Internet: lubricants.petro-canada.com/sds United States, telephone: 1-800-268-5850; fax: 1-800-201- 6285 For Product Safety Information: 1 905-491-0565 |
|------------------------------|---|--|
| Prepared by | : | Product Safety: +1 905-491-0565 |
| Revision Date Date format | : | 2021/05/11 yyyy/mm/dd |

The information is considered as correct, but not exhaustive, and will be used only as a guide, which is based in the current knowledge of the substance or mixture, and is applicable to proper safety precautions for the product.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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