

Safety Data Sheet



DV LUBE 30 / PR-31

Version: 1.0 Revision Date: 2017-05-24 Print Date: 2017-05-24

SDS Number: 200001

SECTION 1. IDENTIFICATION

Product Name: DV LUBE 30
Part Number: PR-31

SUPPLIER: DV Systems Inc.
490 Welham Road
Barrie, ON L4N 8Z4

Telephone: +1 705 728-5657

Emergency telephone: CHEMTREC (24 h) 1(800) 424-9300 (US & Canada)
or 1(703)527-3387 CCN703011

Recommended Use: Compressor oil

SECTION 2. HAZARD IDENTIFICATION

GHS Classification: Not a hazardous substance or mixture

GHS Label Elements

Hazard Pictograms: No hazard symbol required
Signal word: No signal word

Hazard Statements: PHYSICAL HAZARDS:
Not classified as a physical hazard under GHS criteria.
HEALTH HAZARDS:
Not classified as a health hazard under GHS criteria.
ENVIRONMENTAL HAZARDS:
Not classified as an environmental hazard under GHS criteria.

Precautionary Statements: Prevention:
No precautionary phrases.
Response:
No precautionary phrases.
Storage:
No precautionary phrases.
Disposal:
No precautionary phrases.

Other Hazards: Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used oil may contain harmful impurities. Not classified as flammable but will burn.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name: DV LUBE 30 / PR-31

Chemical nature: Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO extract, according to IP346.

Hazardous components: No hazardous ingredients

SECTION 4. FIRST-AID MEASURES

General advice: Not expected to be a health hazard when used under normal conditions.

Inhalation: No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

Skin Contact: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

Eye Contact: Flush eye with copious quantities of water.
If persistent irritation occurs, obtain medical attention.

Ingestion: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Most Important Symptoms and Effects, Acute and Delayed: Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

Immediate Medical Attention and Special Treatment: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media: Do not use water in a jet.

Specific Hazards Arising from the Product Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.

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Specific extinguishing methods:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special Protective Equipment and Precautions for Fire-Fighters:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Avoid contact with skin and eyes.
Environmental precautions:	Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.
Methods for Containment and Cleaning Up:	Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
Additional advice:	For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

General Precautions:	Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
Advice on safe handling:	Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.
Avoidance of contact:	Strong oxidising agents.
Product Transfer:	This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.
STORAGE	
Other data:	Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers. Store at ambient temperature.

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Packaging material: Suitable material: For containers or container linings, use mild steel or high density polyethylene.
Unsuitable material: PVC.

Container advice: Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Oil mist, mineral	Not assigned	TWA (inhalable fraction)	5 mg/m ³	US. ACGIH Threshold limit values
		TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (inhalable fraction)	5 mg/m ³	ACGIH

Biological occupational exposure limits: No biological limit allocated.

Monitoring Methods: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/> Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/> Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/> Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp> L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

Engineering Measures: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
General Information:
Define procedures for safe handling and maintenance of controls.
Educate and train workers in the hazards and control measures relevant to normal

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activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or subsequent recycle. Always observe good personal hygiene measures, such as washing hands 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.

Individual Protection Measures

Respiratory Protection:

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 engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand Protection:

Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye Protection:

If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection:

Skin protection is not ordinarily required beyond standard work clothes. It is good practice to wear chemical resistant gloves.

Protective measures:

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

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Environmental exposure controls: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid at room temperature.
Colour: Light brown.
Odour: Slight hydrocarbon.
Odour Threshold: Data not available
pH: Not applicable

Pour point: -33 °C / -27 °F
Method: ASTM D97

Initial Boiling Point and Boiling Range: > 280 °C / 536 °F
estimated value(s)

Flash Point 240 °C / 464 °F
Method: ASTM D92

Evaporation Rate: Data not available

Flammability (solid, gas): Data not available

Upper Explosion Limit: Typical 10 %(V)

Lower Explosion Limit: Typical 1 %(V)

Vapour Pressure: < 0.5 Pa (20 °C / 68 °F)
estimated value(s)

Relative Vapour Density: > 1
estimated value(s)
Relative Density: 0.899 (15 °C / 59 °F)
Density: 899 kg/m³ (15.0 °C / 59.0 °F)Method: ASTM D1298

Solubility in Water: negligible

Solubility in Other Liquids: Data not available

Partition Coefficient, n-Octanol / Water: Pow: > 6
(based on information on similar products)

Auto-ignition temp: > 320 °C / 608 °F

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Explosive properties: Not classified
Decomposition Temperature: Data not available
Conductivity: This material is not expected to be a static accumulator.
Viscosity kinematic: 100 mm²/s (40.0 °C / 104.0 °F)
Method: ASTM D445
9.2 mm²/s (100 °C / 212 °F)
Method: ASTM D445

SECTION 10. STABILITY AND REACTIVITY

Reactivity: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

Chemical Stability: Stable

Possibility of Hazardous Reactions: Reacts with strong oxidizing agents.

Conditions to Avoid: Extremes of temperature and direct sunlight.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment:

Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Likely Routes of Exposure

Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute Toxicity

Acute oral toxicity: LD50 (rat): > 5,000 mg/kg
Expected to be of low toxicity:

Acute inhalation toxicity: Not considered to be an inhalation hazard under normal conditions of use.

Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg
Expected to be of low toxicity:

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Skin Corrosion / Irritation:	Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Serious Eye Damage / Irritation:	Expected to be slightly irritating.
Respiratory or skin sensitization:	Not expected to be a skin sensitiser.
Germ cell mutagenicity:	Genotoxicity in vivo: Not considered a mutagenic hazard.
STOT (Specific Target Organ Toxicity) - Single Exposure:	Not expected to be a hazard.
STOT (Specific Target Organ Toxicity) - Repeated Exposure:	Not expected to be a hazard.
Aspiration Hazard STOT (Specific Target Organ Toxicity) - Repeated Exposure Respiratory and/or Skin Sensitization:	Remarks: Not expected to be a skin sensitizer.
Carcinogenicity:	Not expected to be carcinogenic. Product contains mineral oils of types shown to be non-carcinogenic in animal skin painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).
Reproductive Toxicity Effects on fertility:	Not expected to impair fertility. Not expected to be a developmental toxicant.
Notes:	Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION *(section heading must appear; all content is optional)*

Basis for assessment:	Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).
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Ecotoxicity

Toxicity to fish (Acute toxicity): Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute toxicity): Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants (Acute toxicity): Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l

Persistence and Degradability

Biodegradability: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

Bio accumulative Potential

Bioaccumulation: Contains components with the potential to bio accumulate.

Partition coefficient: noctanol/water: Pow: > 6 (based on information on similar products)

Mobility in Soil: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile. Floats on water.

Other Adverse Effects: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. Poorly soluble mixture. May cause physical fouling of aquatic organisms. Mineral oil is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

SECTION 13. DISPOSAL CONSIDERATIONS *(section heading must appear; all content is optional)*

Disposal Methods

Waste from residues: Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Waste, spills or used product is dangerous waste. Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

Contaminated packaging: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.

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SECTION 14. TRANSPORT INFORMATION *(section heading must appear; all content is optional)*

National Regulations: TDG
Not regulated as a dangerous good

International Regulation: IATA-DGR
Not regulated as a dangerous good
IMDG-Code
Not regulated as a dangerous good

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Pollution category : Not applicable
Ship type : Not applicable
Product name : Not applicable
Special precautions : Not applicable

Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Additional Information: MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15. REGULATORY INFORMATION *(section heading must appear; all content is optional)*

Safety, Health and Environmental Regulations: This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.
The components of this product are reported in the following inventories:
EINECS: All components listed or polymer exempt.
TSCA: All components listed.
DSL: All components listed.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IECS - 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

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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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

Date of Latest

Revision: 26.05.2017

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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