MATERIAL SAFETY DATA SHEET

LUBE 20 / PR-20

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY / UNDERTAKING	
Product Name:	**DV LUBE 20 / PR-20 COMPRESSOR FLUID**
Material uses:	DV LUBE 20 / PR-20 Compressor Fluids are used for the lubrication of air and inert gas compressors of the reciprocating, rotary screw, and rotary vane types. These compressor oils should NEVER be used in equipment compressing pure oxygen or other chemically active gases such as chlorine or hydrogen chloride. DO NOT USE in breathing air apparatus or medical equipment.
Supplier:	DV Systems Inc. 490 Welham Road Barrie, Ontario L4N 8Z4 Phone: (705) 728-5657 Fax: (705) 728-4974
Emergency telephone number:	CHEMTREC: 1-800-424-9300 (US and Canada). Poison Control Centre: Consult local telephone directory for emergency number(s).

2. HAZARDS IDENTIFICATION	
Physical state:	Viscous liquid.
Odour:	Mild petroleum oil like.
WHMIS (Canada):	Not controlled under WHMIS (Canada).
OSHA/HCS status:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Emergency overview:	No specific hazard.
Routes of entry:	Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Inhalation:	No known significant effects or critical hazards.
Ingestion:	No known significant effects or critical hazards.
Skin:	Slightly irritating to the skin.
Eyes:	Slightly irritating to the eyes.

Potential chronic health effects	
Chronic effects:	No known significant effects or critical hazards.
Carcinogenicity:	Not listed as carcinogenic by OSHA, NTP or IARC.
Mutagenicity:	No known significant effects or critical hazards.
Teratogenicity:	No known significant effects or critical hazards.
Developmental effects:	No known significant effects or critical hazards.
Fertility effects:	No known significant effects or critical hazards.
Medical conditions aggravated by overexposure:	Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated skin exposure can produce local skin destruction or dermatitis.

See toxicological information (Section 11)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of severely hydrotreated and hydrocracked and/or solvent-refined base oil (petroleum).
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

The base oil may be a mixture of the following CAS#s: 8042-47-5, 64741-95-3, 64742-01-4, 64742-46-7, 64742-47-8, 64742-53-6, 64742-54-7, 64742-55-8, 64742-62-7, 72623-83-7, 72623-84-8, 72623-85-9, 72623-86-0, 72623-87-1, 178603-64-0, 178603-65-1, 178603-66-2, 445411-73-4

4. FIRST-AID MEASURES

Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
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. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation:	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion:	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician:	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE-FIGHTING MEASURES	
Flammability of the product:	May be combustible at high temperature.
Extinguishing media	
Suitable:	Use an extinguishing agent suitable for the surrounding fire.
Not suitable:	None known.
Special exposure hazards:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Products of combustion:	Carbon oxides (CO, CO2), nitrogen oxides (NOx), phosphorus oxides (POx), sulphur oxides (SOx), smoke and irritating vapours as products of incomplete combustion.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Special remarks on fire hazards:	Low fire hazard. This material must be heated before ignition will occur.
Special remarks on explosion hazards:	Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

6. ACCIDENTAL RELEASE MEASURES	
Personal precautions:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
Environmental precautions:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods for cleaning up	
Small spill:	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill:	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE	
Handling:	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Storage:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
8 .EXPOSURE CONTROLS / PERSONAL PROTECTION	
Ingredient:	Mixture of severely hydrotreated and hydrocracked and/or solvent-refined base oil (petroleum).
Exposure limits:	ACGIH TLV (United States). Notes: (Mineral oil) TWA: 5 mg/m³, (Inhalable fraction) 8 hour(s).
Consult local authorities for acceptable exposure limits.	
Recommended monitoring procedures:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
Engineering measures:	No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protection	
Respiratory:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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. Recommended: organic vapour filter

8 .EXPOSURE CONTROLS / PERSONAL PROTECTION *(CONT'D)*	
Hands:	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. Recommended: neoprene, nitrile, polyvinyl alcohol (PVA), Viton®.
Eyes:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Skin:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
9 .PHYSICAL AND CHEMICAL PROPERTIES	
Physical state:	Viscous liquid.
Flash point:	Open cup: 238°C (460.4°F) [Cleveland.]
Auto-ignition temperature:	Fire Point: 266 °C (510.8°F)
Flammable limits:	Not available
Colour:	Pale yellow.
Odour:	Mild petroleum oil like.
Odour threshold:	Not available
pH:	Not available
Boiling/condensation point:	Not available
Melting/freezing point:	Not available
Relative density:	0.869 kg/L @ 15°C (59°F)
Vapour pressure:	Not available
Vapour density:	Not available
Volatility:	Not available
Evaporation rate:	Not available
Viscosity:	68 cSt @ 40°C (104°F), 8.7 cSt @ 100°C (212°F), VI=99
Pour point:	-30°C (-22°F)
Solubility:	Insoluble in water.

10. STABILITY AND REACTIVITY	
Chemical stability:	The product is stable.
Hazardous polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Materials to avoid:	Reactive with oxidising agents, acids, alkalis and reducing agents.
Hazardous decomposition products:	May release COx, NOx, POx, SOx, methacrylate monomers, smoke and irritating vapours when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product/ingredient name:	Result	Species	Dose	Exposure
Mixture of severely hydrotreated and hydrocracked and/or solvent-refined base oil (petroleum).	LD50 Dermal LD50 Oral LC50 Inhalation Dusts and mists	Rabbit Rat Rat	>2000 mg/kg >5000 mg/kg >5.2 mg/l	- - 4 hours
Conclusion/Summary	Not available.			
Chronic toxicity Conclusion/Summary	Not available.			
Irritation/Corrosion Conclusion/Summary	Not available.			
Sensitizer Conclusion/Summary	Not available.			
Carcinogenicity Conclusion/Summary	Not available.			

Classification

Product/ingredient name:	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Mixture of severely hydrotreated and hydrocracked and/or solvent-refined base oil (petroleum).	A4	-	-	-	-	-
Mutagenicity Conclusion/Summary	Not available.					
Teratogenicity Conclusion/Summary	Not available.					
Reproductive toxicity Conclusion/Summary	Not available.					

12. ECOLOGICAL INFORMATION

Environmental effects	No known significant effects or critical hazards.
Aquatic ecotoxicity Conclusion/Summary	Not available.
Biodegradability Conclusion/Summary	Not available.
Other adverse effects	No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Waste disposal:	The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees

14. TRANSPORT INFORMATION

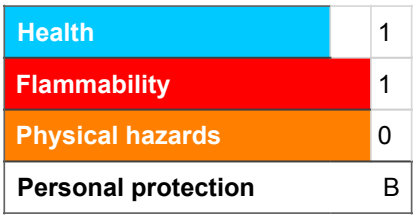
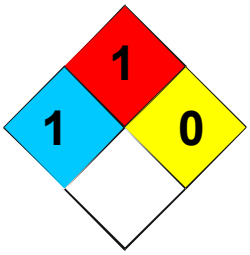
Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
TDG Classification	Not Regulated	-	-	-		-
DOT Classification	Not Regulated	-	-	-		-

PG*: Packing Group

15. REGULATORY INFORMATION

United States

HCS Classification	Not regulated.
U.S. Federal regulations / State regulations	All components of this product are listed on TSCA or are exempt. A component of this product is subject to a TSCA Polymer Exemption - if you intend to import this product into the U.S. please contact Product Safety for more information.

15. REGULATORY INFORMATION *(cont'd)*	
Canada	
WHMIS (Canada)	Not controlled under WHMIS (Canada).
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.	
International regulations	
Canada inventory	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are listed or exempted.
Europe inventory	All components are listed or exempted.
16. OTHER INFORMATION	
Hazardous Material Information System (U.S.A.)	
National Fire Protection Association (U.S.A.)	
References	Available upon request.
Reason for revision:	Not applicable
Prepared by:	Health & Safety

The Canadian Controlled Products Regulations (CPR) (Under the Hazardous Products Act, part of the WHMIS legislation) only apply to WHMIS Controlled (i.e., hazardous) products. Therefore, the CPR and the 3-year update rule specified therein do not apply to WHMIS Non-Controlled products. Although this is true, customarily DV Systems reviews and updates Non-Controlled product MSDS if a customer requests such an update. These Non-Controlled product updates are given a lower priority than Controlled products but are handled as soon as practicable. If you would like to verify if the MSDS you have is the most current, or you require any further information, please contact:
Internet: dvcompressors.com/msds

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