

MATERIAL SAFETY DATA SHEET

PRODUCT NAME : MECHANICAL PUMP OIL - ULTRAGRADE 15,19,20,70

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

NFPA Hazard codes		HMIS Hazard codes		Rating System
Health	1	Health	1	0 = No Hazard
Flammability	1	Flammability	1	1 = Slight Hazard
Instability	0	Reactivity	0	2 = Moderate Hazard
				3 = Serious Hazard
				4 = Severe Hazard

3. Composition/Information on Ingredients

Ingredient	% Weight	CAS No	Hazard class*	Risk phrase*
Severely hydrotreated and hydrocracked base oil (petroleum)	100	-	Not applicable	Not applicable

*Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous under EU Directive No 1272/2008 (as amended) and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable".

4. First Aid Measures

- Eyes:** Flush eyes with large amounts of water until irritation subsides. If irritation persists get medical assistance. Keep eyelids open whilst flushing.
- Skin:** Flush with large amounts of water-use soap if available. Remove grossly contaminated clothing, including shoes, and launder before reuse.
- Ingestion/Oral:** Wash out mouth with water. If swallowed, do not induce vomiting. Keep at rest. Get prompt medical attention.
- Inhalation:** Using approved respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. If breathing is difficult, give oxygen. Keep at rest. Call for prompt medical attention.
- Other Information:** None.

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5. Fire Fighting Measures

Extinguishing Media: Use water spray to cool surfaces exposed to fire. Extinguish with alcohol resistant foam, carbon dioxide, water fog or dry chemical. Avoid spraying water directly into storage containers due to danger of boil over.

Fire and Explosion Hazard: Containers may explode if exposed to fire. Hazardous combustion products: carbon oxides, diphenylamine, smoke and irritating fumes as result of incomplete combustion. Direct water stream may cause violent frothing.

Special Protective Equipment for Fire Fighters: No special protection required for small outdoor fires. Indoor fires & significant outdoor fires, wear a self-contained breathing apparatus (SCBA) which meets appropriate standards operated in positive pressure mode, and full turn out gear.

For Flammability Properties - see Section 9.

6. Accidental Release Measures

Personal precautions:

Evacuate non-essential staff, or those not equipped with individual protection apparatus. Turn leaking containers leak-side up to prevent the escape of liquid. Remove/extinguish sources of ignition. Avoid inhalation and contact with skin and eyes.

Environmental precautions:

Stop the leak if it is safe/possible to do so. Use dykes to prevent spreading. Avoid contaminating sewers, streams, rivers and other water courses with spilled product. Notify the appropriate authorities if significant contamination occurs.

Clean-up procedures:

Use suitable inert absorbent materials to absorb spilled product. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Dispose of collected product safely: see Section 13 "Disposal Considerations".

7. Handling and Storage

Handling: Avoid the formation or spread of mists in the air. Avoid inhalation of mists. Avoid contact with skin and eyes. Prevent small spills and leakage to avoid slip hazard. DO NOT handle near an open flame, sources of heat or sources of ignition.

Storage: Combustible materials should be stored away from extreme heat and strong oxidising agents. Store in tightly closed containers in cool, dry and well ventilated areas. Electrically earth (ground) all equipment containing the material. Must only be kept in original packaging. Compatibility with plastic materials can vary; it is therefore recommended that compatibility be tested prior to use.

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8. Exposure Controls/Personal Protection

Exposure Limits:

Ingredient	ACGIH - TLV -	OSHA - PEL	Occupational Exposure Limits EH40 (UK)
Severely hydrotreated paraffinic oil	5 mg/m ³ - 8 hr TWA * 10 mg/m ³ - 15 min STEL (as oil mist, mineral)	5 mg/m ³ - 8 hr TWA (as oil mist, mineral)	5 mg/m ³ - 8 hr TWA 10 mg/m ³ - 15 min STEL (as oil mist, mineral)

* Recommendation by the manufacturer for oil mists: ACGIH TLV. TWA: 8 hr - 5 mg/m³.

Personal Protection:

Engineering Measures:	Ensure good ventilation under all working conditions. Ensure that eyewash station and safety shower are close to working area.
Respiratory Protection:	No special respiratory protection is normally required. For high airborne concentrations with inadequate ventilation, use an approved organic vapour cartridge respirator.
Hand/Skin Protection:	For casual contact PVC gloves are suitable. For direct contact of more than 2 hours, Viton® or Nitrile gloves are recommended. Gloves should be replaced immediately if signs of degradation are observed. Long sleeved clothing is recommended to minimise skin contact.
Eye/Face Protection:	Wear chemical splash goggles in case of splashing.
Hygiene Measures:	Practice good hygiene. Wash hands after handling and before eating.
Other/General Protection:	None.

9. Physical and Chemical Properties

Appearance and Odour	Pale yellow, liquid with characteristic odour	Melting point (pour point)	Grades 15 and 19: -15 / 5 Grades 20 and 70: -12 / 10.4	°C/°F
pH (as supplied)	No data available	Viscosity (cSt)	Grade 15: 38/100 @ 40°C Grade 19: 55/131 @ 40°C Grade 20: 103/217 @ 40°C Grade 70: 70/258 @ 40°C	°C/°F
Solubility in Water	Insoluble in cold water	Auto Ignition	No data available	°C/°F
Volatile Content by Volume	Non volatile	Flash Point	Grades 15, 19 & 20: 220 / 428 Grade 70: 230 / 446	°C/°F
Specific Gravity	0.86 @ 20 °C (68 °F)			

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10. Stability and Reactivity

Stability:	Stable.
Material/Conditions to Avoid:	Strong oxidising agents, reducing agents, acids and bases. Excessive heat and formation of oil mist.
Hazardous Decomposition:	Carbon oxides, diphenylamine and smoke on combustion.
Hazardous Polymerisation:	Will not occur.

11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation refer to Section 2 Hazards Identification.

Animal data:

LD50 value:	Oral : >5000 mg/kg (rat).	Dermal : >2000 mg/kg (rabbit).
LC50 value:	Inhalation : >2500 mg/m ³ mist /4h (rat).	Dermal/eye irritation : non irritant to rabbit.

Chronic toxicity:

No chronic effects expected.

Carcinogenicity:

No known carcinogenic, teratogenic or mutagenic effects.

12. Ecological Information

Ecotoxicity:

Low toxicity.

Mobility:

Insoluble in water. Floats on water.

Persistence and degradability:

Expected to be Biodegradable.

Bioaccumulative potential:

No bioaccumulation potential.

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13. Disposal Considerations

Disposal operations:

This product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

Used material should be disposed of through a suitably qualified or licensed waste contractor. Care should be taken to ensure compliance with national and local regulations. This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers.

Disposal of packaging:

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Ensure compliance with local regulations.

DO NOT pressurise, cut, heat or weld containers. Empty product containers may contain product residue.

DO NOT reuse empty containers without commercial cleaning or reconditioning.

Note: According to European Waste Catalogue, Waste Codes are not product specific, but application specific. The user must be aware that the conditions of use may affect the waste classification after use. Please refer to the List of Wastes (England) Regulations 2005 (as amended) for waste nomenclature.

14. Transport Information

This product is not classified as dangerous under transport regulations.

PARAMETER	EUROPEAN	CANADIAN TDG	UNITED STATES DOT
Proper Shipping Name	Not applicable	Not applicable	Not applicable
Hazard Class	Not applicable	Not applicable	Not applicable
Identification Number	Not applicable	Not applicable	Not applicable
Shipping Label	Not applicable	Not applicable	Not applicable

15. Regulatory Information

European Regulatory Information

This product has been classified in accordance with EU Regulation No 1272/2008 (as amended) on the Classification, Labelling and Packaging of Substances and Mixtures.

Classified as dangerous to supply : No.

Risk Phrases : Not applicable.

Safety Phrases : Not applicable.

Symbols : None.

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United States Regulatory Information

This material is on the Toxic Substances Act Inventory (TSCA-USA).

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and 40 CFR Part 372.

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

Canadian Regulatory Information

WHMIS Classification: Not Classified.

This material is on the Domestic Substances List (DSL-Canada).

16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Sources of information for this data sheet:

- Multisol Limited "ULTRAGRADE 15" Material Safety Data Sheet. Revision 04. Date: 13th November 2009.
- Multisol Limited "ULTRAGRADE 19" Material Safety Data Sheet. Revision 04. Date: 13th November 2009.
- Multisol Limited "ULTRAGRADE 20" Material Safety Data Sheet. Revision 04. Date: 13th November 2009.
- Multisol Limited "ULTRAGRADE 70" Material Safety Data Sheet. Revision 04. Date: 13th November 2009.

Glossary:

ACGIH - American Conference of Governmental Industrial Hygienists; ANSI - American National Standards Institute; Canadian TDG - Canadian Transportation of Dangerous Goods; CAS - Chemical Abstracts Service; Chemtrec - Chemical Transportation Emergency Center (US); DSL - Domestic Substances List; EH40 (UK) - HSE Guidance Note EH40 Occupational exposure limits; EPCRA - Emergency Planning and Community Right-to-Know Act; HMIS - Hazardous Material Information Service; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OSHA - Occupational Safety and Health Administration, US department of Labour; PEL - Permissible exposure limit; SARA (Title III) - Superfund Amendments and Reauthorization Act; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self-Contained Breathing Apparatus; STEL - Short Term Exposure Limit; TLV - threshold limit value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-Weighted Average; US DOT - US Department of Transportation; WHMIS - Workplace Hazardous Materials Information System.

Revisions:

December 2010 - Data Sheet updated to reflect the latest regulatory and supplier safety information.

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