


SECTION 1. IDENTIFICATION

Product Identifier	Dynasol-Ep
Other Means of Identification	DYN-EP
Recommended Use	Natural Oil Degreaser with Extreme Pressure Additives
Restrictions on Use	<i>Not Applicable</i>
Initial Supplier Identifier	Active Chemicals Ltd. Unit 159, 5489 Byrne Road Burnaby, British Columbia, Canada, V5J 3J1 Telephone: (604) 454-0050 Facsimile: (604) 454-0051
Emergency Telephone Number	CANUTEC (613) 996-6666

SECTION 2. HAZARD IDENTIFICATION

GHS Classification	CHRONIC AQUATIC TOXICITY – CATEGORY 2*
Label Elements Pictograms	
Signal Word	<i>Not Applicable</i>
Hazard Statements	H411 – Toxic to aquatic life with long lasting effects.
Precautionary Statements	
Prevention:	P273 – Avoid release to the environment.
Response:	P391 – Collect spillage.
Storage:	<i>Not Applicable</i>
Disposal:	P501 – Dispose of contents/container to an approved waste disposal plant.
Other Hazards	May cause minor eye, skin, and respiratory irritation which does not result in classification.
NOTES	*This material is not classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). *This product is not a WHMIS controlled product in Canada. It does not meet any of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Common name / Synonyms
Methyl Oleate	112-62-9	60 – 90%	<i>Not Available</i>
Fatty acids, C8-18 and C18-unsaturated, methyl esters	67762-37-2	5 – 10%	Methyl Esters
Non-hazardous ingredients or those below disclosure requirements	<i>Not applicable</i>	0 – 35%	<i>Not Applicable</i>

Notes

SECTION 4. FIRST-AID MEASURES

Inhalation	Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. If irritation or symptoms develop, seek medical attention.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. If irritation persists, seek prompt medical attention. Take off contaminated clothing and wash before re-use.
Eye Contact	Rinse with plenty of water. If irritation or symptoms develop, seek medical attention.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Most Important Symptoms and Effects, Acute and Delayed	Acute: INGESTION: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Chronic: <i>Not Available</i>
Immediate Medical Attention and Special Treatment	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media	
Suitable Extinguishing Media	Dry chemical, foam, carbon dioxide and water fog.
Unsuitable Extinguishing Media	Water jet may spread fire.
Flammability classification (OSHA 29 CFR 1910.106)	Not flammable.
Hazardous Combustion Products	Carbon oxides; Other unidentified organic compounds.
Specific Hazards Arising from the Product	Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Material will float on water and can be re-ignited at the water's surface. Risk for spontaneous combustion if substantial quantities of product are left on porous organic materials (cotton waste or rag). Used rags or other cleaning materials may begin to burn by themselves if improperly discarded.
Special Protective Equipment and Precautions for Fire-Fighters	Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Materials such as rags used with this product may begin to burn by themselves. Contaminated equipment (brushes, rags) must be cleaned immediately with water.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Implement spill control plan. All persons dealing with the clean-up should wear the appropriate personal protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.
Methods for Containment and Cleaning Up	Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required. If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): None.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Materials such as rags used with this product may begin to burn by themselves. After use, put rags in water or lay flat to dry, then discard. In order to prevent the risk of fire, good housekeeping standards must be maintained and the accumulation of residues on contaminated rags, etc. should be avoided. Keep away from extreme heat and flame. Keep away from incompatibles. Wash thoroughly after handling. Keep containers closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous.
Conditions for Safe Storage	Store in a cool, dry, well ventilated area, away from incompatibles. Inspect periodically for damage or leaks. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. To prevent spontaneous combustion, store wiping rags and similar material in air tight containers and/or soaked with water.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	Fatty acids, C8-18 and C18-unsaturated, methyl esters	<i>Not Available</i>	<i>Not Available</i>	<i>Not Available</i>
Methyl Oleate	<i>Not Available</i>	<i>Not Available</i>	<i>Not Available</i>	<i>Not Available</i>

Notes	*Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.
Appropriate Engineering Controls	Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
Individual Protection Measures	
Eye/Face Protection	Safety goggles or glasses as appropriate for the job.
Skin Protection	Gloves impervious to the material are recommended. Advice should be sought from glove suppliers. Depending on conditions of use, an impervious apron should be worn.
Respiratory Protection	If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

Other

An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear yellow liquid	Relative Density (water = 1)	0.89 at 20°C
Odour	Mild odour	Solubility in Water	Insoluble
Odour Threshold	<i>Not Available</i>	Solubility in Other Liquids	<i>Not Available</i>
pH	<i>Not Available</i>	Partition Coefficient, n-Octanol / Water (Log Kow)	<i>Not Available</i>
Melting Point and Freezing Point	<i>Not Available</i>	Auto-ignition Temperature	<i>Not Available</i>
Initial Boiling Point and Boiling Range	<i>Not Available</i>	Decomposition Temperature	<i>Not Available</i>
Flash Point	None up to 100°C (PMCC)	Viscosity	<i>Not Available</i>
Evaporation Rate	<i>Not Available</i>	Flammability (solid, gas)	<i>Not Applicable (Liquid)</i>
Vapour Density (air = 1)	<i>Not Available</i>	Upper and Lower Flammability or Explosive Limit	<i>Not Applicable</i>
Vapour Pressure	<i>Not Available</i>	Sensitivity to Static/Impact	Not Sensitive

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not reactive.
Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Hazardous polymerization will not occur. Contact with strong alkalies and acids may hydrolyze esters, liberating flammable Methanol.
Conditions to Avoid	Avoid heat and open flame. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation.
Incompatible Materials	Strong oxidizing agents; Strong acids; Alkalies.
Hazardous Decomposition Products	None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation Skin contact Eye contact Ingestion

Acute Toxicity	
LC50 (inhalation)	> 5 mg/L (Fatty acids, C8-18 and C18-unsaturated, methyl esters)
LD50 (oral)	> 5000 mg/kg (Fatty acids, C8-18 and C18-unsaturated, methyl esters)
LD50 (dermal)	<i>Not Available</i>
Notes	<i>Not Applicable</i>
Skin Corrosion / Irritation	May be mildly irritating to skin. Will be transient.
Serious Eye Damage / Irritation	May be mildly irritating to the eyes. Will be transient.
Inhalation	May be mildly irritating when inhaled. Will be transient.
STOT (Specific Target)	Not reported.

Organ Toxicity) - Single Exposure	
Aspiration Hazard	Not reported.
STOT (Specific Target Organ Toxicity) - Repeated Exposure	Not reported.
Respiratory and/or Skin Sensitization	Not known to be a sensitizer.
Carcinogenicity	IARC reports inadequate evidence for classification as human carcinogen.
Notes	
Reproductive Toxicity	
Development of Offspring	Not reported.
Sexual Function and Fertility	Not reported.
Effects on or via Lactation	Not reported.
Germ Cell Mutagenicity	Not expected to be a mutagen.
Interactive Effects	Not reported.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	May be toxic to aquatic species with long lasting effects.		
	Ingredient	Species	LC/EC₅₀
	Fatty acids, C8-18 and C18-unsaturated, methyl esters	Daphnia magna	0.255 mg/l (48h, EC ₅₀) 0.0814 mg/L (NOEC/21 day)
	Fatty acids, C8-18 and C18-unsaturated, methyl esters	Green algae	0.179 mg/L/72hr (72h, EC ₅₀) 0.0396 mg/L (NOEC / 72hr)
Persistence and Degradability	Expected to be readily biodegradable.		
Bioaccumulative Potential	<i>Not Available</i>		
Mobility in Soil	<i>Not Available</i>		
Other Adverse Effects	<i>Not Available</i>		

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods	Canadian Environmental Protection Act: All ingredients are listed in the DSL. Dispose of in accordance with all federal, provincial/state, and local regulations. Consult with your local supplier for additional information.
RCRA	If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group
*Canadian TDG Regulations					
*49 CFR/DOT					
IATA Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Fatty acids methyl ester	Class 9	PG III
IMDG Code	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Fatty acids methyl ester	Class 9	PG III
Note: This substance meets the criteria for an environmentally hazardous substance according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.					
Notes:					
*Not regulated unless shipped by sea, UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids methyl ester), Class 9, PG III					

SECTION 15. REGULATORY INFORMATION

US Federal Information						
Components listed below are present on the following U.S. Federal chemical lists:						
Ingredients	CAS Number	TSCA Inventory	CERCLA Reportable Quantity (RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	De minimus Concentration
Fatty acids, C8-18 and C18-unsaturated, methyl esters	67762-37-2	Yes	None	None	No	<i>Not Applicable</i>
SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: None.						

US State Right to Know Laws:

No components listed are present on the U.S. Federal chemical lists.

Safety, Health and Environmental Regulations

Canadian Environmental Protection Act (CEPA):
The following ingredient(s) is listed on the NDSL: Fatty acids methyl esters.

SECTION 16. OTHER INFORMATION

Date of Creation	January 23, 2017
Date of Latest Revision	<i>Not Applicable</i>
Disclaimer	This Safety Data Sheet (SDS) was prepared by iHazmat Regulatory Ltd., using information provided by Active Chemicals Ltd. The information in this SDS is offered for your consideration and guidance when working with this product.

*SDS compliant with WHMIS 2015