

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273 or CHEMTREC 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:

TRADE NAME: LIBERATE® ADJUVANT

1.2 RECOMMENDED USE: EMULSIFIABLE CONCENTRATE SURFACTANT

1.3 MANUFACTURED FOR AND DISTRIBUTED BY:

LOVELAND PRODUCTS CANADA, INC.
789 DONNYBROOK DRIVE • DORCHESTER, ONTARIO N0L 1G5

1.4 24 Hour Emergency Phone: (Chemtrec): 1-800-424-9300 (Toll Free) - Additional Emergency Phone 1-800-561-8273

Loveland Technical Service: 1-800-328-4678

U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Acute Toxicity – Inhalation	Category 4	H332
Eye Damage/Irritation	Category 2B	H320

2.2 Label elements



Signal word: WARNING

Hazard Statement: H332 – Harmful if inhaled.
H320 – Causes eye irritation.
H303 – May be harmful if swallowed
H313 – May be harmful in contact with skin.

Precautionary Statement: (Prevention): P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 – Use only outdoors or in a well-ventilated area.
P264 – Wash hands thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P280 – Wear protective gloves/eye protection.

Precautionary Statement: (Response): P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 – Call a poison centre or doctor/physician if you feel unwell.
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 – If eye irritation persists: Get medical advice/attention.

Precautionary Statement: (Storage): Information not required.

Precautionary Statement: (Disposal): Information not required.

2.3 Other hazards

None known.



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3. COMPOSITION, INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name:	CAS No.	Concentration [%]
Lecithin	8002-43-5	
Methyl esters of fatty acids	67784-80-9	
Alcohol ethoxylate	34398-01-1	
		100.00

Warning, contains the allergen soy

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Ingestion: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: May be harmful if absorbed through skin. Spray mist or vapours may be irritating to the respiratory tract.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-561-8273

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Carbon dioxide (CO₂), foam, water fog, dry chemical, or other extinguishing media suitable for the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, hazardous by-products can be released.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.



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6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapours and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Avoid contact with eyes, skin and clothing. Do not breathe mist or vapour. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Product will become thicker at cold temperatures but effectiveness will not be affected. Warm product before use. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

Not normally required.

8.2 EXPOSURE CONTROLS:

OCCUPATIONAL EXPOSURE LIMITS

Components	List	Type	Value
No listings			

Provide adequate general and local exhaust ventilation. Provide eyewash station.

Individual Protection Measures:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Not required.
Skin Protection: Long-sleeved shirt, long pants, and socks.
Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-21C or NIOSH approved respirator with N, R, P or HE filter. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE:	Liquid
ODOUR:	Mild.
ODOUR THRESHOLD:	No data available.
COLOUR:	Brown.
pH:	6.8 (1% solution)
MELTING POINT / FREEZING POINT:	No data available / Freezing Point: No data available.
BOILING POINT:	No data available.
FLASH POINT:	>212 °F (100 °C) / TCC
FLAMMABILITY (solid, gas):	No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	No data available.
VAPOUR PRESSURE:	No data available.
SOLUBILITY:	Emulsion.
PARTITION CO-EFFICIENT, n-OCTANOL / WATER:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
DECOMPOSITION TEMPERATURE:	No data available.
VISCOSITY:	No data available.
SPECIFIC GRAVITY (Water = 1):	0.976 g/ml
DENSITY:	0.98 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample.
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal conditions. Unstable at elevated temperatures.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No reactions known under normal use conditions. Will not polymerize.

10.4 CONDITIONS TO AVOID

High alkaline conditions.

10.5 INCOMPATIBLE MATERIALS

Avoid contact with strong oxidizers.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

During a fire, smoke may contain the original material, oxides of carbon, in addition to combustion products of varying composition which may be toxic and/or irritating.

11. TOXICOLOGICAL INFORMATION

11.1 LIKELY ROUTES OF EXPOSURE

Skin contact, eye contact.

LC₅₀ (rat): > 2.1 mg/L (4 HR).

LD₅₀ Oral (male rat): > 5000 mg/kg

LD₅₀ Dermal (rabbit): > 2000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Moderate irritant

Eye Irritation (rabbit): Irritant

Specific Target Organ Toxicity: No data available.

Aspiration: No data available.

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: No data available.

Germ Cell Mutagenicity: No data available

Interactive Effects: None known.



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12. ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product	Species	Test Results
96-hour LC ₅₀	Oncorhynchus mykiss	17.6 mg/L
96-hr NOEC	Oncorhynchus mykiss	12.5 mg/L
48-hour EC ₅₀	Daphnia Magna	9.3 mg/L
48-hour NOEC	Daphnia Magna	7.5 mg/L

Drift or runoff may adversely affect non-target plants.
Do not apply directly to water.
Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Do not reuse containers for any purpose. Container is recyclable, and is to be disposed of at a container collection site. Contact your local dealer/distributor for the location of the nearest collection site. Before taking container to the collection site: Triple or pressure-rinse the empty container, adding the rinsate to the spray tank. Make the empty container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

14.1 LAND TRANSPORT

TDG Shipping Description: NOT REGULATED

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA

1	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe

HMIS

1	Health
0	Flammability
0	Reactivity
B	PPE



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CEPA – Domestic Substances List (DSL): All substances in this product are listed on the DSL or not required to be listed
Hazardous Products Act Information: CPR Compliance: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.
WHMIS Classification: Exempt.
National Fire Code of Canada: Not applicable.

16. OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Product Stewardship and Regulatory Affairs

REVIEWED BY: Safety, Health and Environment

@Liberate is a registered trademark of Loveland Products Canada, Inc.

PCP (Pest Control Products Act) Registration No. 29491

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