

Material Safety Data Sheet

Revision Date 12-Mar-2012

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product code	DA7101
Product name	Engage
Recommended Use	Lubricant
Supplier	Drummond, A Lawson Brand Lawson Products, Inc. 1666 East Touhy Avenue Des Plaines, IL 60018 1-866-529-7664
Emergency telephone number	(888) 426-4851

2. HAZARDS IDENTIFICATION

Emergency Overview

Flammable. Irritant. May be harmful if swallowed.

Aggravated Medical Conditions

None Known

Principal Routes of Exposure

Eyes. Inhalation. Skin absorption. Skin contact.

Potential health effects

Eyes	Contact with eyes may cause irritation. Extreme overexposure may cause. Chemical burns. Irreversible damage to eyes.
Skin	May cause skin irritation and/or dermatitis. Extreme overexposure may cause. Chemical burns. Frostbite.
Inhalation	Exposure to vapors may cause the following effects. Shortness of breath. Dizziness. Light headedness. Extreme overexposure may cause. Possible asphyxiation. Chemical pneumonitis. Central nervous system effects. Harmful by inhalation.
Ingestion	May cause chemical pneumonitis if aspirated into lungs. Extreme overexposure may cause. Gastrointestinal irritation. Kidney damage. Liver abnormalities. Central nervous system effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
n-Butyl acetate	123-86-4	3-8
Isobutyl acetate	110-19-0	3-8
Trade Secret	N/A	1-5
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	11-16
Petroleum distillates, hydrotreated heavy naphthenic	64742-52-5	54-59
Butane	106-97-8	6-11

Propane	74-98-6	8-13
n-Propyl acetate	109-60-4	4-9

4. FIRST AID MEASURES

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 20 minutes. Seek medical attention.
Skin contact	Wash area thoroughly with soap and water. Remove and wash contaminated clothing before re-use.
Ingestion	Drink 1 or 2 glasses of water. Do Not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.
Inhalation	Remove to fresh air. Provide oxygen if breathing is difficult. If not breathing, give artificial respiration. Keep warm and quiet. Seek medical attention.

5. FIRE FIGHTING MEASURES

Flash point °C	35
Flash point °F	95
Method	No information available
Autoignition temperature °C	No data available
Autoignition temperature °F	No data available
Flammability Limits (% in Air)	
Upper	9.5%
Lower	1.8%

Suitable extinguishing media

Alcohol foam. Foam. Carbon dioxide (CO2). Dry chemical powder. Water fog.

Special protective equipment for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Fire and Explosion Hazards

Evacuate area of unprotected and unnecessary personnel. Material is highly volatile and readily gives off vapors. Vapors are heavier than air and may travel along the ground to an ignition source distant from material handling area. Possible ignition sources include pilot lights, flames, lighted cigarettes, heating elements, electric motors, sparks from electrical switches. Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Sensitivity to shock

No information available.

Sensitivity to static discharge

No information available.

6. ACCIDENTAL RELEASE MEASURES

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Personal precautions

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition.

Clean-up methods - small spill

Absorb with fire resistant absorbent. Dispose of absorbent in accordance with local, state and federal regulations.

Clean-up methods - large spill

Dike or dam large spills. Do not allow product to reach sewage system, soil, surface or ground water, or any water course. Notify proper authorities if entry occurs. Dispose of absorbent in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Handling

Keep container closed when not in use. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Keep container tightly closed. Keep away from direct sunlight. Store in temperatures below 120 degrees F. Keep away from open flames, hot surfaces and sources of ignition. Containers exposed to extreme heat may burst.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Petroleum distillates, hydrotreated heavy naphthenic	-	-	-	-
Solvent naphtha (petroleum), medium aliphatic	100 ppm	-	-	-
Propane	1000 ppm 1800 mg/m ³	-	1000 ppm	-
Butane	800 ppm	-	1000 ppm	-
n-Propyl acetate	200 ppm 840 mg/m ³	-	200 ppm	250 ppm
Isobutyl acetate	150 ppm 700 mg/m ³	-	150 ppm	-
n-Butyl acetate	150 ppm 710 mg/m ³	-	150 ppm	200 ppm
Trade Secret	-	-	-	-

Ventilation and Environmental Controls

Use enough ventilation, local exhaust at the work area, general, or both, to keep below the TLV's in the worker's breathing zone and the general area.

Hygiene measures

General industrial hygiene practice. Wash hands before eating or using the washroom. Remove and wash contaminated clothing before re-use.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Wear a NIOSH approved respirator with chemical/mechanical filters for chemicals listed in Section 3 when ventilation is restricted.

Hand Protection

Gloves are recommended to prevent prolonged or repeated contact. Chemical resistant gloves. Polyvinyl alcohol gloves.

Eye protection

ANSI approved safety glasses or splash goggles with face shield are recommended.

Skin and body protection

Wear appropriate clothing to minimize skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Aerosol
Color	Colorless
Odor	Solvent
Odor Threshold	No information available
pH	Not Applicable
Specific Gravity	0.797 @ 70°F
Vapor pressure	No data available
Vapor density	No data available
Evaporation Rate	Slower than Ether (ether = 1)
Water solubility	Insoluble in water
VOC Content	< 50%
Partition Coefficient (n-octanol/water)	Not Applicable
Boiling point/range °C	No data available
Boiling point/range °F	No data available
Melting point/range °C	Not Applicable
Melting point/range °F	Not Applicable
Flash point °C	35
Flash point °F	95

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to avoid

Heat, flames and sparks.

Incompatability

Strong oxidizing agents.

Hazardous Decomposition Products

May produce forms of. Carbon monoxide. Carbon dioxide.

Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 (oral,rat)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat)
Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5	5000 mg/kg	5000 mg/kg	5 mg/L
Solvent naphtha (petroleum), medium aliphatic 64742-88-7	5000 mg/kg	3000 mg/kg	5.28 mg/L
Propane 74-98-6	-	-	658 mg/L
Butane 106-97-8	-	-	658 mg/L
n-Propyl acetate 109-60-4	9370 mg/kg	17760 mg/kg	-
Isobutyl acetate 110-19-0	13400 mg/kg	5000 mg/kg	-
n-Butyl acetate 123-86-4	10768 mg/kg	17600 mg/kg	390 ppm
Trade Secret N/A	-	-	-

Synergistic Products None known

Potential health effects

Sensitization	None known .
Chronic toxicity	See Section 2 .
Mutagenic effects	None known .
Teratogenic effects	None known .
Reproductive toxicity	None known .
Target Organ Effects	Kidney. Liver. Cardiovascular system.
Carcinogenic effects	See Table Below.

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Petroleum distillates, hydrotreated heavy naphthenic	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

Solvent naphtha (petroleum), medium aliphatic	Not Listed				
Propane	Not Listed				
Butane	Not Listed				
n-Propyl acetate	Not Listed				
Isobutyl acetate	Not Listed				
n-Butyl acetate	Not Listed				
Trade Secret	Not Listed				

12. ECOLOGICAL INFORMATION

Petroleum distillates, hydrotreated heavy naphthenic

Water Flea Data

Daphnia magna EC50>1000 mg/L (48 h)

Solvent naphtha (petroleum), medium aliphatic

Water Flea Data

Daphnia magna hEC50 48 (>100 mg/L)

n-Propyl acetate

Water Flea Data

Daphnia magna EC50=318 mg/L (24 h)

Isobutyl acetate

Water Flea Data

Daphnia magna EC50=168 mg/L (24 h)

n-Butyl acetate

Microtox Data

Photobacterium phosphoreum EC50=70.0 mg/L (5 min)

Photobacterium phosphoreum EC50=82.2 mg/L (15 min)

Pseudomonas putida EC50=959 mg/L (18 h)

Photobacterium phosphoreum EC50=98.9 mg/L (30 min)

Water Flea Data

Daphnia magna EC50=72.8 mg/L (24 h)

13. DISPOSAL CONSIDERATIONS

Disposal Information

Full or partially full containers are considered hazardous waste. Do not puncture or incinerate. Dispose in accordance with federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

DOT

UN1950 Aerosols, flammable, 2.1

Exception: (Compressed Gas not more than 1.0L) Consumer Commodity
ORM-D

TDG

UN1950 AEROSOLS, flammable, 2.1

15. REGULATORY INFORMATION

US EPA SARA 313

State Regulations

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Petroleum distillates, hydrotreated heavy naphthenic	Not Listed	Not Listed	Not Listed
Solvent naphtha (petroleum), medium aliphatic	Not Listed	Not Listed	Not Listed
Propane	Listed	Listed	Not Listed
Butane	Listed	Listed	Not Listed
n-Propyl acetate	Listed	Listed	Not Listed
Isobutyl acetate	Listed	Listed	Not Listed
n-Butyl acetate	Listed	Listed	Not Listed
Trade Secret	Not Listed	Not Listed	Not Listed

International Inventories

Chemical Name	EINECS	DSL	NDSL	TSCA
Petroleum distillates, hydrotreated heavy naphthenic	X	X	-	X
Solvent naphtha (petroleum), medium aliphatic	X	X	-	X
Propane	X	X	-	X
Butane	X	X	-	X
n-Propyl acetate	X	X	-	X
Isobutyl acetate	X	X	-	X
n-Butyl acetate	X	X	-	X
Trade Secret	-	-	-	-

CPR

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations.

16. OTHER INFORMATION**NFPA**

Health - 2
Flammability - 4
Reactivity - 0

HMIS

Health - 2
Flammability - 4
Physical Hazard - 0

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The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.