

1. Product and Company Identification

Product number DA7101
Material name Aerosol Hi-Tech Lube Engage
Revision date 04-24-2014
Company information Lawson Products, Inc.
 877 W. Bryn Mawr Ave.
 Chicago, IL 60631 United States
Company phone 773-304-5050
Emergency telephone US 888-426-4851

Version # 02
Supersedes date 04-24-2014

2. Hazards Identification

Emergency overview DANGER

CONTENTS UNDER PRESSURE.
 Aerosol. Pressurized container may explode when exposed to heat or flame. May cause flash fire or explosion.

Will be easily ignited by heat, spark or flames. Harmful in contact with eyes. Irritating to skin. Prolonged exposure may cause chronic effects.

OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eyes Eye contact may result in corneal injury. Contact with eyes may cause irritation.

Skin Irritating to skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Prolonged inhalation may be harmful.

Ingestion Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion.

Target organs Central nervous system. Lungs. Respiratory system.

Chronic effects Shortness of breath. Conjunctiva. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May cause delayed lung injury.

Signs and symptoms Discomfort in the chest. Shortness of breath. Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Coughing. Conjunctivitis. Irritating to mouth, throat, and stomach. Skin irritation. Defatting of the skin. Rash.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	40 - 60
C12-C14 Isoalkanes	68551-19-9	10 - 20
2-Ethylhexyl Acetate	103-09-3	2.5 - 10
Butane	106-97-8	2.5 - 10
Heavy Paraffinic Petroleum Distillates	64741-88-4	2.5 - 10
Isobutyl Acetate	110-19-0	2.5 - 10

Components	CAS #	Percent
Light Paraffinic Petroleum Distillates	64741-89-5	2.5 - 10
n-Butyl Acetate	123-86-4	2.5 - 10
Propane	74-98-6	2.5 - 10
Propyl Acetate	109-60-4	2.5 - 10
Other components below reportable levels		2.5 - 10

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact	Take off contaminated clothing and wash before reuse. Wash off with warm water and soap. Get medical attention if irritation develops and persists.
Inhalation	If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Call a physician if symptoms develop or persist.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center.

Notes to physician

Treat symptomatically. Symptoms may be delayed.

General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties

Flammable by OSHA criteria. Heat may cause the containers to explode. Vapors may travel considerable distance to a source of ignition and flash back. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed. Fire may produce irritating, corrosive and/or toxic gases.
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS.

Environmental precautions

Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up

Should not be released into the environment. Stop the flow of material, if this is without risk. Isolate area until gas has dispersed. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage**Handling**

Vapors may form explosive mixtures with air. Do not handle or store near an open flame, heat or other sources of ignition. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not re-use empty containers. Do not get this material in contact with eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid prolonged exposure. Use only in area provided with appropriate exhaust ventilation. Observe good industrial hygiene practices.

Storage

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. The pressure in sealed containers can increase under the influence of heat. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep in an area equipped with sprinklers. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the MSDS). Level 3 Aerosol.

8. Exposure Controls / Personal Protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value
Isobutyl Acetate (CAS 110-19-0)	TWA	150 ppm
n-Butyl Acetate (CAS 123-86-4)	STEL	200 ppm
Propyl Acetate (CAS 109-60-4)	TWA	150 ppm
	STEL	250 ppm
	TWA	200 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Isobutyl Acetate (CAS 110-19-0)	PEL	700 mg/m3
		150 ppm
n-Butyl Acetate (CAS 123-86-4)	PEL	710 mg/m3
		150 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3
		1000 ppm
Propyl Acetate (CAS 109-60-4)	PEL	840 mg/m3
		200 ppm

Engineering controls

Explosion-proof general and local exhaust ventilation.

Personal protective equipment**Eye / face protection**

Do not get in eyes. Wear safety glasses with side shields (or goggles).

Skin protection

Avoid contact with the skin. Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Not available.
Auto-ignition temperature	665.28 °F (351.82 °C) estimated
Boiling point	198.19 °F (92.33 °C) estimated
Color	Not available.
Flammability limits in air, upper, % by volume	8.5 % estimated
Flammability limits in air, lower, % by volume	2.1 % estimated
Flash point	-156.00 °F (-104.44 °C) Propellant estimated
Form	Aerosol.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Physical state	Gas.
Solubility (water)	Not available.
Specific gravity	0.826 estimated
Vapor pressure	54 psig @70F estimated
Other data	
Heat of combustion	32.81 kJ/g estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Fire or intense heat may cause violent rupture of packages.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.

11. Toxicological Information**Toxicological data**

Product	Species	Test Results
16 OZ ENGAGE LUBE LB 12PK (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	65039.3828 mg/kg, estimated
	Rat	3620.5229 mg/kg, estimated
<i>Inhalation</i>		
LC50	Mouse	9610.9824 mg/l, 2 Hours, estimated
	Rat	18084.2773 mg/l, 15 Minutes, estimated
		9300.0391 mg/l, 4 Hours, estimated
		3.6971 mg/l/4h, estimated
	Wistar rat	5381.4072 mg/l, 4 Hours, estimated
<i>Oral</i>		
LD50	Mouse	55932.957 mg/kg, estimated
	Rabbit	83.6769 g/kg, estimated

Product	Species	Test Results
	Rat	31141.1777 mg/kg, estimated
Components	Species	Test Results
2-Ethylhexyl Acetate (CAS 103-09-3)		
Acute		
<i>Dermal</i>		
LD50	Guinea pig	> 17460 mg/kg
	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Mouse	> 3200 mg/kg
	Rat	3 g/kg
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Heavy Paraffinic Petroleum Distillates (CAS 64741-88-4)		
Acute		
<i>Dermal</i>		
LD50	Rat	2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	2 mg/l/4h
<i>Oral</i>		
LD50	Rat	5000 mg/kg
Isobutyl Acetate (CAS 110-19-0)		
Acute		
<i>Dermal</i>		
LD50	Rat	5000 mg/kg
<i>Oral</i>		
LD50	Rabbit	4.8 g/kg
Light Paraffinic Petroleum Distillates (CAS 64741-89-5)		
Acute		
<i>Dermal</i>		
LD50	Rat	2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	2 mg/l/4h
<i>Oral</i>		
LD50	Rat	5000 mg/kg
n-Butyl Acetate (CAS 123-86-4)		
Acute		
<i>Inhalation</i>		
LC50	Wistar rat	160 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	14000 mg/kg
Propane (CAS 74-98-6)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 1442.847 mg/l, 15 Minutes
		658 mg/l/4h

Components	Species	Test Results
Propyl Acetate (CAS 109-60-4)		
Acute		
<i>Oral</i>		
LD50	Mouse	8300 mg/kg
	Rabbit	6.64 g/kg
	Rat	9370 mg/kg

* Estimates for product may be based on additional component data not shown.

Acute effects	Expected to be a low hazard for usual industrial or commercial handling by trained personnel.
Local effects	Components of the product may be absorbed into the body through the skin. Irritating to skin. Contact may irritate or burn eyes.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause lung injury. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Skin corrosion/irritation	Irritating to skin. Prolonged skin contact may cause temporary irritation.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Neurological effects	Hazardous by OSHA criteria.
Reproductive effects	This product is not expected to cause reproductive or developmental effects.
Symptoms and target organs	Direct contact with eyes may cause temporary irritation.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Product	Species	Test Results
16 OZ ENGAGE LUBE LB 12PK (CAS Mixture)		
Algae	IC50	Algae 22702.8125 mg/L, 72 Hours, estimated
Crustacea	EC50	Daphnia 1850.0908 mg/L, 48 Hours, estimated
Fish	LC50	Fish 894.9245 mg/l, 96 hours, estimated
Components	Species	Test Results
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)		
Crustacea	EC50	Daphnia 1000.0001 mg/L, 48 Hours
Heavy Paraffinic Petroleum Distillates (CAS 64741-88-4)		
Crustacea	EC50	Daphnia 1000.0001 mg/L, 48 Hours
Fish	LC50	Fish 5001, 96 Hours
Isobutyl Acetate (CAS 110-19-0)		
Fish	LC50	Fish 100, 96 Hours
Light Paraffinic Petroleum Distillates (CAS 64741-89-5)		
Crustacea	EC50	Daphnia 1000.0001 mg/L, 48 Hours
Fish	LC50	Fish 5001, 96 Hours
n-Butyl Acetate (CAS 123-86-4)		
Algae	IC50	Algae 675 mg/L, 72 Hours
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 17 - 19 mg/l, 96 hours

Components	Species	Test Results
Propyl Acetate (CAS 109-60-4)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 56 - 64 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment. 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.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. 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.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation / Accumulation	No data available.

Bioaccumulative potential

Octanol/water partition coefficient log Kow

Butane	2.89
Isobutyl Acetate	1.78
n-Butyl Acetate	1.78
Propane	2.36
Propyl Acetate	1.23

Partition coefficient

Butane	2.89
Isobutyl Acetate	1.78
n-Butyl Acetate	1.78
Propane	2.36
Propyl Acetate	1.23

Mobility in environmental media	No data available.
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13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 F The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal instructions	Contents under pressure. Do not puncture, incinerate or crush. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1950
Proper shipping name	Aerosols, flammable
Hazard class	2.1
Special precautions	Read safety instructions, MSDS and emergency procedures before handling.

Additional information:

Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Labels required	2.1
ERG code	10L
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	2.1
Labels required	None
EmS	F-D, S-U
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
Packaging Exceptions	LTD QTY

DOT



IATA; IMDG



15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

DEA Exempt Chemical Mixtures Code Number

Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA (Superfund) reportable quantity

Isobutyl Acetate: 5000

n-Butyl Acetate: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - Yes
Reactivity Hazard - No

Section 302 extremely hazardous substance No

SARA 311/312 Hazardous chemical No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - New Jersey RTK - Substances: Listed substance

Butane (CAS 106-97-8)	Listed.
Isobutyl Acetate (CAS 110-19-0)	Listed.
n-Butyl Acetate (CAS 123-86-4)	Listed.
Propane (CAS 74-98-6)	Listed.
Propyl Acetate (CAS 109-60-4)	Listed.

US. Pennsylvania RTK - Hazardous Substances

2-Ethylhexyl Acetate (CAS 103-09-3)	Listed.
Butane (CAS 106-97-8)	Listed.
Isobutyl Acetate (CAS 110-19-0)	Listed.
n-Butyl Acetate (CAS 123-86-4)	Listed.
Propane (CAS 74-98-6)	Listed.
Propyl Acetate (CAS 109-60-4)	Listed.

16. Other Information

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

This data sheet contains changes from the previous version in section(s):

Hazards Identification: US Hazard Categories