

1. Identification

Product identifier	DBE™-LVP ESTERS
Other means of identification	
SDS number	1964
Recommended use	Solvent, paint remover, chemical intermediate, coatings, cleaning agent, bonding agent, adhesives.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company Information	INVISTA (Canada) Company 455 Front Road Kingston, Ontario, K7L4Z6
Emergency telephone:	1-855-521-5687 INVISTA ERAP (24 Hour): 613-348-3616
General Information	1-770-792-4221
e-mail	sds@invista.com
Supplier	Not available.

2. Hazard identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Hazardous to the aquatic environment, acute Category 3 hazard

Label elements

Hazard symbol	None.
Signal word	None.
Hazard statement	Not available.
Precautionary statement	
Prevention	Avoid release to the environment.
Response	Not assigned.
Storage	Not available.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information None.

Other hazards None known.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
DIMETHYL GLUTARATE		1119-40-0	60-80%
DIMETHYL ADIPATE		627-93-0	15-35%

Composition comments The above concentration values do not reflect absolute minimums and maximums; these values are typical which may vary from time to time.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If the affected person is not breathing, apply artificial respiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth method if victim inhaled the substance. Get medical attention, if needed.

Skin contact Immediately flush skin with plenty of water. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse. Get medical attention if irritation develops or persists.

Eye contact	Rinse immediately with plenty of water, also under the eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.
Ingestion	If swallowed, do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not use mouth-to-mouth method if victim ingested the substance. Obtain medical attention, as needed.
Most important symptoms/effects, acute and delayed	Eyes: May cause eye irritation with susceptible persons. Symptoms include itching, burning, redness and tearing. Skin: May cause skin irritation in susceptible persons. Symptoms may include redness, drying of skin, itching and pain. Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of vapors/fumes may cause respiratory irritation with throat discomfort, coughing or difficulty breathing. Provide general supportive measures and treat symptomatically.
Indication of immediate medical attention and special treatment needed	
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the medical provider in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO ₂ , water spray or regular foam.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Structural firefighters protective clothing will only provide limited protection.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. In the event of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
Specific methods	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. ALWAYS stay away from tanks engulfed in flame.
General fire hazards	Irritating and toxic gases or fumes may be released during a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Immediately evacuate personnel to safe areas. Ventilate closed spaces before entering them. Keep out of low areas. Remove all sources of ignition. For personal protection, see section 8 of the SDS. Do not touch or walk through spilled material.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly. Never return spills in original containers for re-use.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling	Use care in handling/storage. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Wash hands after handling and before eating. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities	Keep tightly closed in a dry, cool and well-ventilated place. Keep this material away from food, drink and animal feed. Keep away from heat, sparks, and flame. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Avoid contact with eyes. Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Avoid contact with skin. Request information on glove permeation properties from the glove supplier.
Other	Wear suitable protective clothing.
Respiratory protection	Not normally needed. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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. Avoid contact with the skin and the eyes. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink.

9. Physical and chemical properties

Appearance	Colorless Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Colorless.
Odor	Mild, fruity
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	8.6 °F (-13 °C)
Initial boiling point and boiling range	410 - 437 °F (210 - 225 °C)
Flash point	219.2 °F (104 °C) Tag Closed Cup
Evaporation rate	< 0.1 ; Butyl Acetate = 1.0
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not determined
Explosive limit - upper (%)	Not determined
Vapor pressure	0.04 mm Hg at 20°C
Vapor density	Not available.
Relative density (liquid)	1.092 at 20° C
Solubility(ies)	
Solubility (water)	4.2 % at 20°C (in Water)
Partition coefficient (n-octanol/water)	log Pow: 0.19 at 25°C (for Dimethyl Glutarate)
Auto-ignition temperature	707 °F (375 °C)
Decomposition temperature	Not available.
Viscosity	1.7 mm ² /s at 40°C 2.53 mm ² /s at 25°C
Other information	
Density	1.08 g/cm ³ at 20°C 9.08 lb/gal at 20°C
Molecular weight	163 g/mol
Specific gravity	1.09 at 20°C

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not expected to occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point.
Incompatible materials	Strong acids, alkalies and oxidizing agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Carbon oxides

11. Toxicological information

Information on likely routes of exposure

Inhalation	Inhalation of vapors/fumes causes respiratory irritation with throat discomfort, coughing or difficulty breathing.
Skin contact	May cause skin irritation in susceptible persons. Symptoms may include redness, drying of skin, itching and pain.
Eye contact	May cause eye irritation with susceptible persons. Symptoms include itching, burning, redness and tearing.
Ingestion	Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms related to the physical, chemical and toxicological characteristics	See information on likely routes of exposure.

Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. Information given is based on data on the components and the toxicology of similar products.
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Product	Species	Test Results
DBE™-LVP ESTERS		
Acute		
Dermal		
LD50	Rabbit	> 2250 mg/kg
	Rat	> 2000 mg/kg
Inhalation		
LC50	Rat	> 11 mg/l/4h
Oral		
LD50	Rat	> 5000 mg/kg

Skin corrosion/irritation	Based on available data, the classification criteria are not met. This product was not a skin irritant in rabbits when applied to intact skin for 4 hours under semi-occlusive dressings. Earlier studies indicated skin irritation is evident when applied to intact skin for 24 hours under rubber sheeting.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met. A single application of 10 uL to the eye cause corneal opacity. The administration of 10-100 uL of a similar mixture caused corneal opacity, transient increases in corneal thickness, and transient corneal anesthesia.

Respiratory or skin sensitization

Respiratory sensitization	Based on available data, the classification criteria are not met.
Skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.

Aspiration hazard	Based on available data, the classification criteria are not met.
Chronic effects	None known.
Further information	None known

12. Ecological information

Ecotoxicity Harmful to aquatic life.

Product	Species	Test Results
DBE™-LVP ESTERS		
	EC50	Fathead Minnows
		> 18 - < 24 mg/l, 96 Hours
Aquatic		
Algae	LOEC	Algae
		85, 72 Hours
	NOEC	Algae
		36, 72 Hours
Crustacea	EC50	Daphnia
		> 112 - < 150 mg/l, 48 Hours

Persistence and degradability Readily biodegradable. Biodegradability = 97 % after 4 Days

Bioaccumulative potential Does not bioaccumulate.

Mobility in soil No data available.

Other adverse effects No data available.

13. Disposal considerations

Disposal instructions Dispose of contents/container (in accordance with related regulations).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

DOT

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

All components of this product are on the Canadian DSL list or are not required to be listed.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

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

*A "Yes" indicates that all components of this product comply 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).

16. Other information

Issue date September-19-2023

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Version # 1.0

List of abbreviations

IARC = International Agency for Research on Cancer.
 ACGIH = American Conference of Governmental Industrial Hygienists.
 OSHA = Occupational Safety and Health Administration.
 NTP = National Toxicology Program.
 CAS = Chemical Abstract Service
 TWA = Time Weighted Average
 SDS = Safety Data Sheet
 TLV = Threshold Limit Value.
 NFPA = National Fire Protection Association.
 HMIS = Hazardous Material Information System.

References

Internal assessments, testing and research.
 Thompson Micromedex, Database, 2006. Hazardous Substance Data Bank, Database, 2006.

Disclaimer

This Safety Data Sheet ("SDS") contains selected information about a specific INVISTA product or group of products. It relates only to the identified product and any identified uses and is based on information available as of the date hereof. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. THIS SDS WAS PREPARED PURSUANT TO GOVERNMENT REGULATIONS THAT IDENTIFY SPECIFIC TYPES OF INFORMATION TO BE PROVIDED HEREIN. IT IS THEREFORE NOT INTENDED AS, AND DOES NOT CONTAIN, A COMPLETE STATEMENT OF, AND DOES NOT CONSTITUTE A REPRESENTATION, WARRANTY OR GUARANTY WITH REGARD TO, A PRODUCT'S CHARACTERISTICS, USES, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE SUITABILITY, SAFETY, EFFICACY, HAZARDS OR HEALTH EFFECTS OF THE PRODUCT, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCT, EXCEPT TO THE EXTENT REQUIRED BY THE RELEVANT LAW AND REGULATIONS. Purchasers and users of the product are responsible for determining that the product is suitable for the intended use and that their workers and the general public are advised of any risks resulting from such use. Nothing contained in this SDS shall be construed to modify any of the commercial terms pursuant to which the product was sold by INVISTA including, but not limited to, terms and conditions addressing each party's respective rights and obligations with regard to warranties, remedies and indemnification.

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