




Section 1. Product and Company Identification

Product Name Dimethyl Fumarate
Product ID D3448
Chemical Name (Synonyms) BG-12
Supplier LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com
Emergency Phone # 1-800-424-9300

Section 2. Hazards Identification

GHS Classification Acute Toxicity: Skin, Category 4

GHS Label elements including precautionary statements

Pictogram 

Signal word Warning

Hazard and precautionary statements

Hazard statement
H312: Harmful in contact with skin.

Precautionary statements
P280: Wear protective gloves.
P302+352: IF ON SKIN: Wash with plenty of soap and water.
P312 Call a POISON CENTER/doctor if you feel unwell.

HMIS Classification Not classified. Caution - substance is not yet fully tested.

NFPA Rating Not classified. Caution - substance is not yet fully tested.

Potential Health Effects Inhalation - May be harmful if inhaled. May cause respiratory tract irritation.
Skin - Acute toxicity. Harmful in contact with skin. May cause skin irritation.
Eyes - May cause eye irritation.

Ingestion - May be harmful if swallowed.

Section 3. Composition/Information on Ingredients

Substances	Ingredient: Dimethyl Fumarate	Percent: 100		
Formula	C ₆ H ₈ O ₄		Formula Wt.	144.13
CAS No.	624-49-7		EC No.	210-849-0

Section 4. First Aid Measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Eye Contact	Flush eyes with water as a precaution.
Skin Contact	Wash off with soap and plenty of water.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Firefighting Measures

Flash Point	Not available.
Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Firefighting Procedures	Wear self-contained breathing apparatus for firefighting if necessary.
Unusual Fire Hazards	Carbon oxides, nitrogen oxides (NO _x).

Section 6. Accidental Release Measures

Personal Precautions	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleanup	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: Ambient
Hazardous Decomposition Products	Not available.
Other Remarks	

Section 8. Exposure Controls/Personal Protection

Personal protective equipment

EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.
General industrial hygiene practice.

PERSONAL PROTECTION

Eye/face protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

Physical State	Solid.	Color	White crystal powder.
Boiling Point	192-193°C	Volatility	Not available.
Melting Point	102-104°C	Density	Not available.
Solubility	Soluble in water (1.6 mg/mL at 20° C), methanol (30 -36 mg/ml), ethanol (10 mg/ml at 25° C), DMSO (29 mg/ml at 25° C), and DMF (~12 mg/ml).	pH	Not available.
Flash Point	Not available.	Ignition temperature	Not available.
Lower explosion limit	Not available.	Autoignition temperature	Not available.
Upper explosion limit	Not available.	Vapor pressure	0.1 hPa @ 25°C
Water solubility	18.8 g/L @ 25°C, 1.6 mg/mL @ 20°C.	Odor	Not available.
Partition coefficient: n-octanol/water	log Pow: 0.74	Odor Threshold	Not available.
Relative vapor density	1.370 g/cm3	Evaporation rate	Not available.

Section 10. Stability and Reactivity

Stability Stable under recommended storage conditions.

Materials To Avoid Strong oxidizing agents.

Hazardous Decomposition Products Not available.

Possibility of hazardous reactions Not available.

Conditions to avoid Not available.

Section 11. Toxicological Information

Oral LD50 Rat: 2,240 mg/kg

Skin corrosion/irritation Rabbit: irritation

Inhalation LC50 Mouse: 10 h >3,100 mg/m³

Serious eye damage/irritation Rabbit: irritation

Dermal LD50 Rabbit: 1,250 mg/kg

Respiratory or skin sensitization Guinea Pig: May cause sensitization by skin contact.

Other information on acute toxicity Not available.

Germ cell mutagenicity Not mutagenic in Ames Test. Chromosome aberration test in vitro lymphocyte, Result: negative

Reproductive Toxicity Developmental Toxicity: Rat: Testing did not show any effects on fertility. No significant adverse effects were reported.

Aspiration Hazard Not available.

Specific organ toxicity single exposure (GHS) May cause respiratory irritation.

Synergistic effects Not available.

Specific organ toxicity repeated exposure (GHS) Not available.

Additional Information Not available.

Teratogenicity Rat: Did not show teratogenic effects in animal experiments.

Signs and symptoms of exposure Not available.

Potential Health Effects Inhalation - May be harmful if inhaled. May cause respiratory tract irritation. Skin - Acute toxicity. Harmful in contact with skin. May cause skin irritation. Eyes - May cause eye irritation. Ingestion - May be harmful if swallowed.

Carcinogenicity **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

Toxicity Toxicity to fish Early-life Stage NOEC - Pimephales promelas (fathead minnow) 0.0457 mg/l
Toxicity to daphnia and other aquatic invertebrates: EC50 -Daphnia magna (Water flea) 1.2 mg/l -48 h

Mobility in soil Not available.

PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not

Persistence and degradability Reproduction Test NOEC -Daphnia magna
76 % Readily biodegradable. (OECD Test
Guideline 301D)

conducted.

Other adverse effects Not available.

Bioaccumulative potential No bioaccumulation is to be expected (log Pow
≤ 4).

Section 13. Disposal Considerations

Waste Disposal Dispose of material according to all federal, state and local regulations.
Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

DOT (US) Not dangerous goods.

IATA Not dangerous goods.

IMDG Not dangerous goods.

Further Information

Section 15. Regulatory Information

Reach No.

SARA 302 Components SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Components No SARA hazards.

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components Dimethyl Fumarate CAS #: 624-49-7 Revision Date:

New Jersey Right To Know Components Dimethyl Fumarate CAS #: 624-49-7 Revision Date:

California Prop 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.

Updated 7/29/2020

For emergencies in the USA, call
CHEMTREC 800-424-9300