



BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 23/05/2011

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Supersedes: 21/06/2017

Version: 3.1

DLM-4747

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixtures
Product name : BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE
Product code : DLM-4747

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Water-react. 1 H260
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Skin Irrit. 2 H315
Eye Dam. 1 H318
STOT SE 3 H335

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F; R11
Xi; R41
Xi; R36/37
R19
R52/53

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Water-react. 1 H260
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Skin Irrit. 2 H315
Eye Dam. 1 H318
STOT SE 3 H335

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DLM-4747

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS05

GHS07

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour
H260 - In contact with water releases flammable gases which may ignite spontaneously
H301+H311 - Toxic if swallowed or in contact with skin
H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P223 - Do not allow contact with water.
P231+P232 - Handle under inert gas. Protect from moisture
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash hands, forearms and face thoroughly after handling.

GHS-US labeling

Hazard pictograms (GHS-US)



GHS02

GHS05

GHS06

GHS07

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapour
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H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

Precautionary statements (GHS-US)

: P210 - Keep away from heat, hot surfaces, sparks, open flames. - No smoking.
P223 - Do not allow contact with water.
P231+P232 - Handle under inert gas. Protect from moisture
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective clothing, protective gloves.
P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor, a POISON CENTER

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DLM-4747

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P312 - Call a doctor, a POISON CENTER if you feel unwell
P321 - Specific treatment (see Hazardous component(s) for labeling on this label)
P322 - Specific treatment (see Hazard pictograms (CLP) on this label)
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P335+P334 - Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use dry sand, dry extinguishing powder, alcohol resistant foam to extinguish.
P402+P404 - Store in a dry place. Store in a closed container.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
DIMETHYL SULFIDE UNLABELED	(CAS-No.) 75-18-3 (EC-No.) 200-846-2 (EC Index-No.) (REACH-no) 01-2119487127-32	78.67 - 80.22	F; R11 Xi; R36 R52
BORANE-D3	(CAS-No.) 13763-62-7	19.78 - 21.33	F; R11 Xn; R21/22 Xi; R41 Xi; R36/37 R19

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DIMETHYL SULFIDE UNLABELED	(CAS-No.) 75-18-3 (EC-No.) 200-846-2 (EC Index-No.) (REACH-no) 01-2119487127-32	78.67 - 80.22	Flam. Liq. 2, H225 Eye Irrit. 2, H319
BORANE-D3	(CAS-No.) 13763-62-7	19.78 - 21.33	Flam. Liq. 2, H225 Water-react. 1, H260 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Name	Product identifier	%	GHS-US classification
DIMETHYL SULFIDE UNLABELED	(CAS-No.) 75-18-3	78.67 - 80.22	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Aquatic Acute 3, H402
BORANE-D3	(CAS-No.) 13763-62-7	19.78 - 21.33	Flam. Liq. 2, H225 Water-react. 1, H260 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.
First-aid measures after inhalation : When symptoms occur: go into open air and ventilate suspected area. If not breathing, give artificial respiration. Get medical advice/attention.
First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes.
First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.

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DLM-4747

Safety Data Sheet

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4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact : Toxic in contact with skin. Causes skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : Toxic if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.
Other information : Use water spray to cool exposed surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid breathing vapors, mist, gas. Avoid dust formation. Evacuate unnecessary personnel. Special attention should be given to low areas/pits where flammable vapors can accumulate. Remove all sources of ignition.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Vacuum with an equipment that avoids ignition risk.
Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation to minimize dust and/or vapor concentrations. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Prevent the build-up of electrostatic charge.
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Store in a well-ventilated place. Keep container tightly closed.
Storage conditions : Store refrigerated (-5 C to 5 C). Protect from light.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation.

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DLM-4747

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DIMETHYL SULFIDE UNLABELED (75-18-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	10.00000000 ppm Basis: USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Upper Respiratory Tract irritation.
BORANE-D3 (13763-62-7)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	50.00000000 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	100 ppm USA. ACGIH Threshold Limit Values (TLV)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Central Nervous System impairment, Upper Respiratory Tract irritation, Kidney damage, Confirmed animal carcinogen with unknown relevance to humans, Danger of cutaneous absorption

BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	80 mg/kg bodyweight/day
Acute - systemic effects, inhalation	31.5 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	5.6 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.29 mg/l
PNEC aqua (marine water)	0.0029 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.12 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0072 mg/kg dwt

8.2. Exposure controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Materials for protective clothing : Wear suitable protective clothing and gloves.

Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.

Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state : Liquid

Appearance : Liquid

Molecular mass : 62.13 g/mol

Color : Colorless

Odor : unpleasant odor

Odor threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : 18 °C (64 °F)

Auto-ignition temperature : No data available

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DLM-4747

Safety Data Sheet

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Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.801 g/ml at 20 °C (68 °F)
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

Vapors may form explosive mixture with air. Reacts violently with water.

10.4. Conditions to avoid

Heat. Open flame. Sparks. Moisture.

10.5. Incompatible materials

Acids. Acid anhydrides. Acid anhydrides. Oxidizing agent. alcohols. Reacts violently with water.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Sulphur oxides. Borane/borane oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.

BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE	
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
DIMETHYL SULFIDE UNLABELED (75-18-3)	
LD50 oral rat	3300 mg/kg Remarks: Behavioral: General anesthetic. Behavioral: Change in motor activity (specific assay).
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat (mg/l)	102 mg/l male and female - 4 h (OECD Test Guideline 403) Remarks: Lungs, Thorax, or Respiration: Other changes.

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: In vitro assay. mammalian. Germ cell mutagenicity. mouse. Lymphoma. Result: Negative. OECD Test Guideline 474. Mouse - male and female. Result: Negative
Carcinogenicity	: Not classified
Reproductive toxicity	: Developmental Toxicity - Rat - Oral. No adverse effect has been observed in chronic toxicity tests.
Specific target organ toxicity – single exposure	: May cause respiratory irritation. Inhalation
Specific target organ toxicity – repeated exposure	: Not classified

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DLM-4747

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DIMETHYL SULFIDE UNLABELED (75-18-3)

NOAEL (oral,rat,90 days)	>= 250 mg/kg bodyweight/day male and female - OECD Test Guideline 408
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Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Nausea. Headache. Vomiting.
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Toxic in contact with skin. Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: Toxic if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

DIMETHYL SULFIDE UNLABELED (75-18-3)

LC50 fish 1	213 mg/l semi-static test LC50 - Onchorhynchus mykiss (rainbow trout) - 96 h (OECD Test Guideline 203)
EC50 Daphnia 1	29 mg/l static test EC50 - Daphnia magna (Water flea) - 48 h (OECD Test Guideline 202)

12.2. Persistence and degradability

DIMETHYL SULFIDE UNLABELED (75-18-3)

Persistence and degradability	Aerobic - exposure time: 28 d.
Biodegradation	77 % - Readily biodegradable (OECD Test Guideline 301D)

12.3. Bioaccumulative potential

DIMETHYL SULFIDE UNLABELED (75-18-3)

Log Pow	0.84 at 20 °C (68 °F)
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.
Product/Packaging disposal recommendations	: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Ecology - waste materials	: Dispose of as unused product.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT)	: 3399
DOT NA no.	UN3399

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Organometallic substance, liquid, water-reactive, flammable (Dimethyl sulfide borane, Dimethyl sulfide)
Class (DOT)	: 4.3 - Class 4.3 - Dangerous when wet material 49 CFR 173.124

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DLM-4747

Safety Data Sheet

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Hazard labels (DOT) : 4.3 - Dangerous when wet
3 - Flammable liquid



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : I - Great Danger

DOT Special Provisions (49 CFR 172.102) : T13 - 6.6 mm Normal..... Prohibited
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: t_r is the maximum mean bulk temperature during transport, t_f is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (t_f) and the maximum mean bulk temperature during transportation (t_r) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d_{15} and d_{50} are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP7 - The vapor space must be purged of air by nitrogen or other means.
TP36 - For material assigned this portable tank special provision, portable tanks used to transport such material may be equipped with fusible elements in the vapor space of the portable

DOT Packaging Exceptions (49 CFR 173.xxx) : None

DOT Packaging Non Bulk (49 CFR 173.xxx) : 201

DOT Packaging Bulk (49 CFR 173.xxx) : 244

14.3. Additional information

Emergency Response Guide (ERG) Number : 138

Other information : No supplementary information available.

Special transport precautions : Not classified as dangerous in the meaning of transport regulations.

Overland transport

Packing group (ADR) : I

Class (ADR) : 4.3 - Substances which, in contact with water, emit flammable gases

Hazard identification number (Kemler No.) : X323

Classification code (ADR) : WF1

Hazard labels (ADR) : 4.3 - Substances which, in contact with water, emit flammable gases
3 - Flammable liquids



Orange plates



Tunnel restriction code (ADR) : B/E

Limited quantities (ADR) : 0

EAC : 4W

APP : A(fl)

Excepted quantities (ADR) : E0

Transport by sea

DOT Vessel Stowage Location : D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.

DOT Vessel Stowage Other : 13 - Keep as dry as reasonably practicable, 40 - Stow "clear of living quarters", 52 - Stow "separated from" acids

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DLM-4747

Safety Data Sheet

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Air transport

DOT Quantity Limitations Passenger aircraft/rail : Forbidden
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 1 L
CFR 175.75)

Civil Aeronautics Law : Combustible materials/Substances which, in contact with water, emit flammable gases

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

Special transport precautions : Not classified as dangerous in the meaning of transport regulations.

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Reactive hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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DIMETHYL SULFIDE UNLABELED (75-18-3)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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BORANE-D3 (13763-62-7)

SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
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SARA Section 311/312 Hazard Classes	Fire hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
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15.2. International regulations

CANADA

BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE()

U.S. - California - Proposition 65 - Carcinogens List	No
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U.S. - California - Proposition 65 - Developmental Toxicity	No
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
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State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List
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DLM-4747

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
BORANE-D3 (13763-62-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	
DIMETHYL SULFIDE UNLABELED (75-18-3)				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				
BORANE-D3 (13763-62-7)				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
Water-react. 1	Substances and mixtures which in contact with water emit flammable gases Category 1
H225	Highly flammable liquid and vapour
H260	In contact with water releases flammable gases which may ignite spontaneously
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
R11	Highly flammable
R19	May form explosive peroxides
R21/22	Harmful in contact with skin and if swallowed
R36	Irritating to eyes
R36/37	Irritating to eyes and respiratory system
R41	Risk of serious damage to eyes
R52	Harmful to aquatic organisms
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
F	Highly flammable
Xi	Irritant
Xn	Harmful

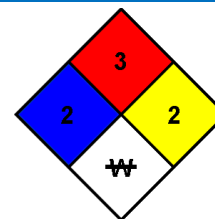
BORANE-D3 METHYLSULFIDE COMPLEX (D, 98%) CONTAINS <10% ADDITIONAL DIMETHYLSULFIDE

DLM-4747

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
NFPA reactivity	: 2 - Materials that readily undergo violent chemical change at elevated temperatures and pressures.
NFPA specific hazard	: W - Materials that react violently or explosively with water.



Hazard Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious Hazard
Physical	: 2 Moderate Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product