

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Name of the substance** Molybdenum Boride (Mo2B)  
**Identification number** 12006-99-4 (CAS number)  
**Registration number** -  
**Document number** 1VU  
**Synonyms** None.  
**Materion Code** 1VU  
**Issue date** 08-March-2017  
**Version number** 02  
**Revision date** 12-January-2018  
**Supersedes date** 08-March-2017

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

**Identified uses** Not available.  
**Uses advised against** None known.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 as amended**

**Hazard summary** Not available.

### 2.2. Label elements

**Label according to Regulation (EC) No. 1272/2008 as amended**

**Contains:** Molybdenum Boride (Mo2B)  
**Hazard pictograms** None.  
**Signal word** None.  
**Hazard statements** The substance does not meet the criteria for classification.

### Precautionary statements

**Prevention** Not available.  
**Response** Not available.  
**Storage** Not available.  
**Disposal** Not available.

**Supplemental label information** None.

**2.3. Other hazards** None known.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Molybdenum Boride (Mo2B)	100	12006-99-4	-	-	

**Classification:** -

## SECTION 4: First aid measures

**General information** Not available.

### 4.1. Description of first aid measures

**Inhalation** Not available.  
**Skin contact** Not available.  
**Eye contact** Not available.  
**Ingestion** Not available.

**4.2. Most important symptoms and effects, both acute and delayed** Not available.

**4.3. Indication of any immediate medical attention and special treatment needed** Not available.

## SECTION 5: Firefighting measures

**General fire hazards** Not available.

### 5.1. Extinguishing media

**Suitable extinguishing media** Not available.

**Unsuitable extinguishing media** Not available.

**5.2. Special hazards arising from the substance or mixture** Not available.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Not available.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Not available.

**For emergency responders** Not available.

**6.2. Environmental precautions** Not available.

**6.3. Methods and material for containment and cleaning up** Not available.

**6.4. Reference to other sections** Not available.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Not available.

**7.2. Conditions for safe storage, including any incompatibilities** Not available.

**7.3. Specific end use(s)** Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	MAK	10 mg/m3	Inhalable fraction.
	STEL	20 mg/m3	Inhalable fraction.

##### Belgium. Exposure Limit Values

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	10 mg/m3

##### Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	10 mg/m3

**Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	MAC	10 mg/m3
	STEL	20 mg/m3

**Czech Republic. OELs. Government Decree 361**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	Ceiling	25 mg/m3
	TWA	5 mg/m3

**Denmark. Exposure Limit Values**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TLV	10 mg/m3

**Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	5 mg/m3	Fine dust, respiratory fraction
		10 mg/m3	Total dust, respiratory fraction

**Greece. OELs (Decree No. 90/1999, as amended)**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	15 mg/m3

**Hungary. OELs. Joint Decree on Chemical Safety of Workplaces**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	STEL	60 mg/m3
	TWA	15 mg/m3

**Iceland. OELs. Regulation 154/1999 on occupational exposure limits**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	10 mg/m3

**Ireland. Occupational Exposure Limits**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.

**Italy. Occupational Exposure Limits**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.

**Lithuania. OELs. Limit Values for Chemical Substances, General Requirements**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.

**Norway. Administrative Norms for Contaminants in the Workplace**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TLV	10 mg/m3

**Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	STEL	10 mg/m3
	TWA	4 mg/m3

**Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.

**Romania. OELs. Protection of workers from exposure to chemical agents at the workplace**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	STEL	10 mg/m3
	TWA	5 mg/m3

**Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.

**Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.

**Switzerland. SUVA Grenzwerte am Arbeitsplatz**

Material	Type	Value	Form
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	TWA	10 mg/m3	Inhalable fraction.

**UK. EH40 Workplace Exposure Limits (WELs)**

Material	Type	Value
Molybdenum Boride (Mo2B) (CAS 12006-99-4)	STEL	20 mg/m3
	TWA	10 mg/m3

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Not available.

**Derived no effect levels (DNELs)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

**8.2. Exposure controls**

**Appropriate engineering controls** Not available.

**Individual protection measures, such as personal protective equipment**

**General information** Not available.

**Eye/face protection** Not available.

**Skin protection**

- **Hand protection** Not available.

- **Other** Not available.

**Respiratory protection** Not available.

**Thermal hazards** Not available.

**Hygiene measures** Not available.

**Environmental exposure controls** Not available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** Solid.

**Form** Not available.

**Colour** Not available.

**Odour** Not available.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** Not available.

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapour pressure** Not available.

**Vapour density** Not available.

**Relative density** Not available.

#### Solubility(ies)

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not available.

**Oxidising properties** Not available.

### 9.2. Other information

**Molecular formula** BMo2

## SECTION 10: Stability and reactivity

**10.1. Reactivity** Not available.

**10.2. Chemical stability** Not available.

**10.3. Possibility of hazardous reactions** Not available.

**10.4. Conditions to avoid** Not available.

**10.5. Incompatible materials** Not available.

**10.6. Hazardous decomposition products** Not available.

## SECTION 11: Toxicological information

**General information** Not available.

#### Information on likely routes of exposure

**Inhalation** Not available.

**Skin contact** Not available.

**Eye contact** Not available.

**Ingestion** Not available.

**Symptoms** Not available.

### 11.1. Information on toxicological effects

<b>Acute toxicity</b>	No data available.
<b>Skin corrosion/irritation</b>	Not available.
<b>Serious eye damage/eye irritation</b>	Not available.
<b>Respiratory sensitisation</b>	Not available.
<b>Skin sensitisation</b>	Not available.
<b>Germ cell mutagenicity</b>	Not available.

#### Carcinogenicity

**Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Not listed.

<b>Reproductive toxicity</b>	Not available.
<b>Specific target organ toxicity - single exposure</b>	Not available.
<b>Specific target organ toxicity - repeated exposure</b>	Not available.
<b>Aspiration hazard</b>	Not available.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	Not available.

## SECTION 12: Ecological information

<b>12.1. Toxicity</b>	No toxicity data noted for the ingredient(s).
<b>12.2. Persistence and degradability</b>	Not available.
<b>12.3. Bioaccumulative potential</b>	Not available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.
<b>12.7. Additional information</b>	

#### **Estonia Dangerous substances in soil Data**

Molybdenum Boride (Mo2B) (CAS 12006-99-4)

Molybdenum (Mo) 10 mg/kg  
Molybdenum (Mo) 20 mg/kg  
Molybdenum (Mo) 200 mg/kg

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

<b>Residual waste</b>	Not available.
<b>Contaminated packaging</b>	Not available.
<b>EU waste code</b>	Not available.

## SECTION 14: Transport information

### ADR

14.1. - 14.6.: Not regulated as dangerous goods.

### RID

14.1. - 14.6.: Not regulated as dangerous goods.

### ADN

14.1. - 14.6.: Not regulated as dangerous goods.

### IATA

14.1. - 14.6.: Not regulated as dangerous goods.

## IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### Authorisations

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### Other EU regulations

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

**National regulations** Not available.

**15.2. Chemical safety assessment** Not available.

## SECTION 16: Other information

**List of abbreviations** Not available.

**References** Not available.

**Information on evaluation method leading to the classification of mixture** Not available.

**Training information** Not available.