

Safety Data Sheet

VMD15 MOLYBDENUM DISUFIDE GREASE



Safety Data Sheet dated 21/6/2018, version 1

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

1.1. Product identifier

Mixture identification:

Trade name: Molybdenum disulfide grease

Trade code: VMD15

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

Description/Use: Grease

1.3. Details of the supplier of the safety data sheet

Company:

V.M.D. ITALIA SRL - Cascina Secchi 325/327 - 24040 Isso (BG) - Italy

V.M.D. ITALIA SRL - Phone n. +39-036393357 +39-036393415

- Fax n. +39-036393718

Competent person responsible for the safety data sheet:

laboratorio@vmditalia.it

1.4. Emergency telephone number

V.M.D. ITALIA SRL - Phone n.. +39-036393357 +39-036393415


From Monday to Thursday 8,30-12,30 13,30-17,30


Friday 8,30-12,30 13,30-16,00

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture


EC regulation criteria 1272/2008 (CLP):

 Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

 Warning, Skin Irrit. 2, Causes skin irritation.

 Warning, Eye Irrit. 2, Causes serious eye irritation.

 Warning, STOT SE 3, May cause drowsiness or dizziness.

 Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing spray.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

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.

P312 Call a POISON CENTER/ doctor/if you feel unwell.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Contains

hexane (containing < 5 % n-hexane (203-777-6)); 2-methylpentane

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards







SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.






3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 30% - < 40%	hexane (containing < 5 % n-hexane (203-777-6)); 2-methylpentane	Index number: 601-007-00-7	 2.6/2 Flam. Liq. 2 H225
		CAS: 107-83-5	 3.10/1 Asp. Tox. 1 H304
		EC: 203-523-4	 3.2/2 Skin Irrit. 2 H315
		Nr. Reg.: 01-21194742	 4.1/C2 Aquatic Chronic 2
		09-33-XXXX	H411
>= 30% - < 40%	propane	Index number: 601-003-00-5	 3.8/3 STOT SE 3 H336
			 2.2/1 Flam. Gas 1 H220

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		CAS: 74-98-6 EC: 200-827-9 Nr. Reg.: 01-21194869 44-21-XXXX	 2.5 Press. Gas H280
>= 15% - < 20%	butane	Index number: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7 Nr. Reg.: 01-21194746 91-32-XXXX	 2.2/1 Flam. Gas 1 H220  2.5 Press. Gas H280
>= 7% - < 10%	and isobutane	Index number: 601-004-00-0 CAS: 75-28-5 EC: 200-857-2 Nr. Reg.: 01-21194853 95-27-XXXX	 2.2/1 Flam. Gas 1 H220  2.5 Press. Gas H280

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove all sources of ignition.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
 - Wash with plenty of water.
- 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhalation of vapours and mists.
 - Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - Contaminated clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
 - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
 - Always keep in a well ventilated place.
 - Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
 - Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
 - Keep away from food, drink and feed.
 - Incompatible materials:
 - None in particular.
 - Instructions as regards storage premises:
 - Cool and adequately ventilated.
- 7.3. Specific end use(s)
 - None in particular

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - hexane (containing < 5 % n-hexane (203-777-6)); 2-methylpentane - CAS: 107-83-5
 - ACGIH - TWA(8h): 500 ppm - STEL: 1000 ppm - Notes: CNS impair, URT and eye irr
 - propane - CAS: 74-98-6
 - ACGIH - Notes: Asphyxia
 - butane - CAS: 106-97-8
 - ACGIH - STEL: 1000 ppm - Notes: CNS impair
 - and isobutane - CAS: 75-28-5
 - ACGIH - STEL: 1000 ppm - Notes: CNS impair
- DNEL Exposure Limit Values
 - N.A.
- PNEC Exposure Limit Values

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N.A.

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value
Appearance and colour:	Pasty black
Odour:	Characteristic
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Flash point:	<0 °C
Evaporation rate:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour pressure:	N.A.
Vapour density:	N.A.
Relative density:	0,81 gr/ml c.ca
Solubility in water:	Insoluble
Solubility in oil:	Total
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

9.2. Other information

Properties	Value
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Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
 - It may catch fire on contact with oxidising mineral acids.
- 10.4. Conditions to avoid
 - Stable under normal conditions.
- 10.5. Incompatible materials
 - Avoid contact with combustible materials. The product could catch fire.
- 10.6. Hazardous decomposition products
 - None.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
 - Toxicological information of the product:
 - N.A.
 - Toxicological information of the main substances found in the product:
 - N.A.
- If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:
 - a) acute toxicity;
 - b) skin corrosion/irritation;
 - c) serious eye damage/irritation;
 - d) respiratory or skin sensitisation;
 - e) germ cell mutagenicity;
 - f) carcinogenicity;
 - g) reproductive toxicity;
 - h) STOT-single exposure;
 - i) STOT-repeated exposure;
 - j) aspiration hazard.

SECTION 12: Ecological information

- 12.1. Toxicity
 - Adopt good working practices, so that the product is not released into the environment.
 - N.A.
- 12.2. Persistence and degradability
 - None
 - N.A.
- 12.3. Bioaccumulative potential
 - N.A.
- 12.4. Mobility in soil
 - N.A.
- 12.5. Results of PBT and vPvB assessment
 - vPvB Substances: None - PBT Substances: None
- 12.6. Other adverse effects

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None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1 UN number:

ADR-UN number: 1950

IATA-UN number: 1950

14.2 UN proper shipping name:

ADR-Shipping Name: Aerosol with capacity of 1000 cm³ Or less

14.3 Transport hazard class(es):

ADR-Class: 2

ADR-Label: UN 1950 Aerosols

IATA-Class: 2.1

IMO-Class: 2.1

14.4 Packing Group:

ADR-Packing Group: III

14.5 Environmental hazards

N.A.

14.6 Special Precautions for User

N.A.

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

No

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

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Seveso III category according to Annex 1, part 1
Product belongs to category: P3a, E2

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Text of phrases referred to under heading 3:

H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H411 Toxic to aquatic life with long lasting effects.

H336 May cause drowsiness or dizziness.

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

Hazard class and hazard category	Code	Description
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Press. Gas	2.5	Gases under pressure
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

This safety data sheet has been completely updated in compliance to Regulation 2015/830.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Aerosols 1, H222+H229	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date.

It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

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ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.