

**Metaflux Moly-Spray**

70-82

**1. Identification of the substance/preparation**

<b>Name of product</b>	<b>Metaflux Moly-Spray</b> Art-Nr. 70-82
<b>Manufacturer/distributor</b>	Techno-Service GmbH Detmolder Str.515, D-33605 Bielefeld Phone 0521/924440, Fax 0521-207432  Internet www.metaflux-ts.de
<b>Advice</b>	Phone 0521/9244420 Fax 0521/207432
<b>Emergency advice</b>	Phone 0521/924440

**! 2. Composition/information on ingredients****! Chemical characterization**

Mineral oil, metal pigments, inorganic lubricating solids, additives, aliphatic hydrocarbon solvent, propane, butane.

**Hazardous ingredients**

<b>CAS-No.</b>	<b>Name</b>	<b>[% weight]</b>	<b>Classification</b>	
000074-98-6	propane	10 - 20	F+	R12
000106-97-8	butane	25 - 35	F+	R12
064742-49-0	Naphtha (petroleum), hydrotreated light	15 - 19,9	Xn; F; N	R11-38-51/53-65-67

**Additional advice**

Classification and labelling Xn/R65 is not required for preparations in aerosols containing  $\geq 10\%$  of hydrocarbon solvents (s. Directive 96/54/EC, Annex V, No.8.4) to CAS-No. 64742-49-0 : This material contains  $< 0.1$  Benzene and must not be classified as carcinogenic (nota P)

Use: High performance lubricant

R-Phrases see chapter 16

**! 3. Special hazards information for man and environment****R-phrases**

12	Extremely flammable.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67	Vapours may cause drowsiness and dizziness.

**! Special hazards information for humans and environment**

Risk of bursting at temperatures above 50°C

Preparation is classified as hazardous in the sense of directive 1999/45/EC.

When used formation of explosive gas/air mixtures may be possible

**4. First aid measures****General information**

Do not leave casualty unattended.

**In case of inhalation**

In case of inhalation remove the casualty into fresh air and seek medical advice.

**In case of skin contact**

In case of contact with skin wash off with soap and water.

**In case of eye contact**

Eye rinsing with water carefully while protecting unhurt eye.

**In case of ingestion**

If swallowed seek medical advice immediately and show the doctor packing or label.

If spittings get into the mouth rinse off with water several times

**Physician's information / possible symptoms**

unknown

**Physician's information / possible dangers**

Risk of aspiration by vomiting if swallowed, also without vomiting

**Treatment (Advice to doctor)**

Treat symptoms.

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## 5. Fire-fighting measures

**Suitable extinguishing material**

Foam

Dry powder

Carbon dioxide

**Extinguishing material that may not be used for safety reasons**

Full water jet

**Special exposure hazards arising from the substance, combustible products or resulting gases**

Risk of bursting by fire heat

**Special protective equipment for firefighters**

Use breathing apparatus with independent air supply.

**Additional information**

Cool containers at risk with water spray jet.

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## 6. Accidental release measures

**Personal precautions**

Ensure adequate ventillation.

Keep away sources of ignition.

**Environmental precautions**

Product shall not reach the drain or soil.

**Methods for cleaning up/taking up**

Stem and take up with absorbent material (e.g. sand, peat, earth).

**Additional Information**

Keep off any handling equipment with engines (source of ignition)

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## 7. Handling and storage

**Advice on safe handling**

Use only in well-ventilated areas.

**Advice on protection against fire and explosion**

Risk of injuries and fire spreading by bursting caused by fire heat

**Requirements for storage rooms and vessels**

Observe National and Local regulations

**Advice on storage compatibility**

no

**Further information on storage conditions**

Protect from heat and direct solar radiation.

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**Storage group** 2B**Fire class** C**Information on storage stability**

Storage time: 24 months.

**8. Exposure controls / personal protection****Additional advice on system design**

use only in well-ventilated area

**Ingredients with occupational exposure limits to be monitored**

CAS-No.	Name	Code	[mg/m <sup>3</sup> ]	[ml/m <sup>3</sup> ]	Remark
000074-98-6	propane	MAK	1800	1000	
000106-97-8	butane	MAK	2400	1000	
64742-49-0	hydrocarbon vapours	MAK	1000	200	

**Additional advice**

no

**Respiratory protection**

Generally not required

required by exceeding the limit values

Filter apparatus, filter A/P3

**Hand protection**

If contamination is possible use chemical-resistant gloves made of nitrile (EN 374; permeation time &gt; 480 min))

**Eye protection**

in case of spittings

**Skin protection**

Generally not required

**General protective measures**

Do not inhale vapours.

**Hygiene measures**

Cloths contaminated with product should not be kept in trouser pockets.

At work do not eat, drink, smoke or take drugs.

**! 9. Physical and chemical properties****Form**  
aerosol**Colour**  
grey**Odour**  
like petrol (gasoline )**Data relevant for safety**

	Value	Temperature	at	Method	Remark
<b>pH value in delivery state</b>					not applicable
<b>Acid number</b>					not applicable
<b>Changes in physical state solid/fluid</b>					not applicable
<b>Changes in physical state gas</b>					not applicable

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	Value	Temperature	at	Method	Remark
<b>Flash point</b>	< 0 °C				
<b>Flammable solid</b>					not applicable
<b>Flammable gas</b>					not applicable
<b>Combustion temperature</b>					not applicable
<b>Autoignition</b>					not applicable
<b>Lower explosion limit</b>	ca. 1,5 Vol-%				informations concern to propellant only
<b>Upper explosion limit</b>	ca. 11 Vol-%				informations concern to propellant only
<b>Vapour pressure</b>	ca. 4,1 bar	20 °C			
<b>Density</b>	ca. 0,717 g/cm <sup>3</sup>	20 °C			
<b>Bulk density</b>					not applicable
<b>Rel. vapour density</b>					not applicable
<b>Solubility in water</b>					insoluble
<b>Solubility/other</b>					organic solvent
<b>Partition coefficient (log p<sub>OW</sub>)</b>					not determined
<b>Viscosity 1</b>					not applicable
<b>Viscosit 2</b>					not applicable
<b>Solvent separation test</b>					not applicable
<b>Solvent concentration</b>	c. 15 - 20 %				
<b>Oxidizing properties</b>	no				
<b>Explosive properties</b>	Through use formation of explosive mixtures may be possible.				

## 10. Stability and reactivity

### Conditions to avoid

near ignition sources(sparks, flames, glow)

### Materials to avoid

no

### Hazardous decomposition products

not by destinated use

**Additional information**

no

**11. Toxicological information****Acute toxicity/Irritability/Sensitization**

	Value/Validation	Species	Method	Remark
<b>LD 50 acute oral</b>				no data available
<b>LD 50 acute dermal</b>				no data available
<b>LC 50 acute inhalation</b>				no data available
<b>Irritability skin</b>				low
<b>Irritability eye</b>				low
<b>Sensitization skin</b>				no
<b>Sensitization respiratory system</b>				no

**Subacute Toxicity - Carcinogenicity**

	Value	Species	Method	Validation
<b>Subacute Toxicity</b>				no data available
<b>Subchronic Toxicity</b>				no data available
<b>Chronic Toxicity</b>				no data available
<b>Mutagenicity</b>				no
<b>Reproduction-Toxicity</b>				no
<b>Carcinogenicity</b>				no
<b>Toxicity test (Additional information)</b>				no
<b>Experiences made from practice</b>				no negative experience
<b>Additional information</b>				no

**12. Ecological information****Data on elimination (persistence and degradability)**

	Elimination rate	Method of analysis	Method	Validation
<b>Physico-chemical degradability</b>	The product doesn't reach sewage by using as destinated			

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	Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b>	The product doesn't reach sewage by using as destinated			
<b>Degradability</b>	The product doesn't reach sewage by using as destinated			
<b>Biological eliminability</b>	The product doesn't reach sewage by using as destinated			
<b>Degradability according to WRMG</b>	The product doesn't reach sewage by using as destinated			

### Mobility and bioaccumulative potential

The product has not been tested. Because of the product's consistency and low solubility in water bioavailability is not likely.

### Ecotoxicological effects

Value	Species	Method	Validation
<b>Fish</b>			no data available
<b>Daphnia</b>			no data available
<b>Algae</b>			no data available
<b>Bacteria</b>			no data available

### Behaviour in sewage plant

The product doesn't reach sewage by using as destinated

### Breathing inhibition of activated sludge

Value	Method	Remark
<b>EC 50</b>		not determined

### Additional ecological information

Value	Method	Remark
<b>OC</b>		not determined
<b>COD</b>		not determined
<b>BOD</b>		not determined
<b>AOX</b>	no	

### Contains following heavy metals and compounds of the 76/464/EWG

no

### General regulation

VOC = 0.177 kg/ can

## ! 13. Disposal considerations

### Waste code No.

16 05 04

### Name of waste

gases in pressure containers (including halons) containing dangerous substances

**Recommendations for the product**

empty cans: material recycling

filled cans: remove in accordance with local regulations

**Recommendations for packaging**

material recycling EWC 150104

**Recommended cleansing agent**

Hydrocarbon solvent

**! General information**

Give only emptied containers to recycling

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**14. Transport information****Land and inland navigation transport (ADR/RID/GGVS/GGVE/ADNR)**

<b>Identification</b>	UN 1950 AEROSOLS, 2.1
<b>UN-No.</b>	1950
<b>Class</b>	2 / Classification code 5F
<b>PG</b>	-
<b>Remarks</b>	Transportation as Limited Quantities (LQ 2); Marking: UN 1950 (rhombe) Entry in the transportation document: Transportation according chapter3.4 ADR

**Marine transport IMDG/GGV See**

<b>Proper shipping name</b>	AEROSOLS
<b>UN-No.</b>	1950
<b>Class</b>	2
<b>PG</b>	-
<b>Marine pollutant</b>	No
<b>EmS-No.</b>	F-D,S-U
<b>Remarks</b>	Entry in transportation document: limited quantities Marks: UN 1950 (rhombe)

**Air transport ICAO/IATA**

<b>Proper shipping name</b>	Aerosols, flammable
<b>UN/ID-No.</b>	UN1950
<b>Class</b>	2.1
<b>PG</b>	-

**Remarks**  
UN-4G/Y fibre board boxes required  
Label: Flammable Gas  
Marking: Aerosols, flammable UN 1950

**Transport/further informations**

ADR Transport Emergency Card: not required

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**15. Regulatory information****Classification**

F+ Extremely flammable

**R-phrases**

12	Extremely flammable.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
67	Vapours may cause drowsiness and dizziness.

**S-phrases**

- 23.3 Do not breathe vapour.  
24/25 Avoid contact with skin and eyes.  
35 This material and its container must be disposed of in a safe way.  
51 Use only in well-ventilated areas.

**Special labelling for certain preparations**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - no smoking. Keep out of the reach of children.

Without sufficient ventilation formation of explosive mixtures may be possible.

**National regulations**

**Water hazard class** 2 german water pollution classification

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**16. Other information**

**Training advice**

Use the entries of this Material Safety Data Sheet

**Recommend uses and restrictions**

Observe care instructions

**Further information**

R-Phrases from chapter 2 (not the classification of the product):

R 11: Highly flammable

R 12: Extremely flammable

R 67: Vapours may cause drowsiness and dizziness.

R 65: Harmful: may cause lung damage if swallowed.

R 38 :Irritating to skin.

R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Sources of key data used**

Material Safety Data Sheets of raw materials