

Metaflux Dry-Lube Spray

70-83

! 1. Identification of the substance/preparation

Name of product	Metaflux Dry-Lube Spray Art-Nr. 70-83
Manufacturer/distributor	Techno-Service GmbH Detmolder Str.515, D-33605 Bielefeld Phone 0521/924440, Fax 0521-207432
Advice	Verkauf Phone 0521/9244420 Fax 0521/207432
Emergency advice	Zentrale Phone 0521/924440

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

inorganic binder, molybdenum disulfide, organic solvents, propane/butane

! Hazardous ingredients

CAS-No.	Name	[% weight]	Classification
000071-36-3	butan-1-ol	0,5 - 2	Xn R10-22-37/38-41-67
000074-98-6	propane	15 - 20	F+ R12
000106-97-8	butane	60 - 65	F+ R12
000123-86-4	n-butyl acetate	5 - 10	R10-66-67
005593-70-4	butyltitanate	2 - 5	Xi RR 38-41
064742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	0,5 - 2	Xn R10-51/53-65-66-67
064742-95-6	Solvent naphtha (petroleum), light arom.	0,5 - 2	Xn,N R10-37-51/53-65-66-67

! Additional advice

to CAS-No. 64742-82-1: This material contains <0.1% benzene and must not be classified as carcinogen (Nota P)

Use: Lubricant

zu CAS-Nr. 64742-95-6 : This material contains <0.1% benzene and must not be classified as carcinogen (Nota P)

R-Phrases see chapter 16

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

12	Extremely flammable.
36	Irritating to eyes.
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

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.
Medical treatment by eye specialist.

In case of ingestion

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

Physician's information / possible symptoms

unknown

Physician's information / possible dangers

no data available

Treatment (Advice to doctor)

Treat symptoms.

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.

! 6. Accidental release measures

Personal precautions

Ensure adequate ventilation.
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)

! 7. Handling and storage

! Advice on safe handling

Provide suitable extraction at the processing machines.

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 regulation

Advice on storage compatibility

no

Further information on storage conditions

Protect from heat and direct solar radiation.

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 ³]	[ml/m ³]	Remark
000071-36-3	butan-1-ol	MAK	300	100	
000074-98-6	propane	MAK	1800	1000	
000106-97-8	butane	MAK	2400	1000	
000123-86-4	n-butyl acetate	MAK	480	100	37
064742-82-1	hydrocarbon vapours	MAK	200	50	
064742-95-6	Kohlenwasserstoffdämpfe Gr. 4 (TRGS 900)		50		

Respiratory protection

Generally not required

! Hand protection

If contamination is possible use chemical-resistant gloves made of nitrile (EN 374)

Eye protection

in case of spittings

Skin protection

Generally not required

General protective measures

Do not inhale aerosols

Hygiene measures

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

! 9. Physical and chemical properties**Form**
aerosol**Colour**
grey**Odour**
ester-like**Data relevant for safety**

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

Safety data-sheet (91/155 EEC)

Printed 03.02.2004

Revision 03.02.2004

Metaflux Dry-Lube Spray

70-83

	Value	Temperature	at	Method	Remark
Flash point	ca. -80 °C				concerns to propellant
Flammable solid					not applicable
Flammable gas					not applicable
Combustion temperature					not applicable
Autoignition					not applicable
Lower explosion limit	ca. 1,5 Vol-%				informations concern to propellant only
Upper explosion limit	ca. 11 Vol-%				informations concern to propellant only
Vapour pressure	ca. 4000 hPa	20 °C			
Density	ca. 0,63 g/cm ³	20 °C			
Bulk density					not applicable
Rel. vapour density					not applicable
Solubility in water					insoluble
Solubility/other					organic solvent
Partition coefficient (log p_{OW})					not determined
Viscosity 1					not applicable
Viscosit 2					not applicable
Solvent separation test					not applicable
Solvent concentration	ca. 11 %				
Explosive properties					
When used formation of explosive mixtures may be possible					
Additional information					
no					

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
LD 50 acute oral				no data available
LD 50 acute dermal				no data available
LC 50 acute inhalation				no data available
Irritability skin				low irritant - must not be labelled
Irritability eye				irritant
Sensitization skin				no
Sensitization respiratory system				no

Subacute Toxicity - Carcinogenicity

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

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

Safety data-sheet (91/155 EEC)

Printed 03.02.2004

Revision 03.02.2004

Metaflux Dry-Lube Spray

70-83

	Elimination rate	Method of analysis	Method	Validation
Physico-chemical degradability	The product doesn't reach sewage by using as destined			
Biological degradability	The product doesn't reach sewage by using as destined			
Degradability	The product doesn't reach sewage by using as destined			
Biological eliminability	The product doesn't reach sewage by using as destined			
Degradability according to WRMG	The product doesn't reach sewage by using as destined			

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
Fish				no data available
Daphnia				no data available
Algae				no data available
Bacteria				no data available

Behaviour in sewage plant

The product doesn't reach sewage by using as destined

Breathing inhibition of activated sludge

	Value	Method	Remark
EC 50			not determined

Additional ecological information

	Value	Method	Remark
OC			not determined
COD			not determined
BOD			not determined
AOX	no		

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

no

! General regulation

VOC = 0.225 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
acetone

General information
Give only emptied containers to recycling

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

Identification UN 1950 AEROSOLS, 2.1
UN-No. 1950
Class 2 / Classification code 5F
PG -

! Remarks

Transportation as Limited Quantities (LQ 2); Marking: UN 1950 (rhombe)
Entry in the transportation document: Transportation according chapter 3.4 ADR

Marine transport IMDG/GGV See

Proper shipping name AEROSOLS
UN-No. 1950
Class 2
PG -
Marine pollutant No
EmS-No. F-D,S-U

! Remarks

Entry in transportation document: limited quantities
Marks: UN 1950 (rhombe)

Air transport ICAO/IATA

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

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

! 15. Regulatory information**! Classification**

F+ Extremely flammable
Xi Irritant

! R-phrases

12	Extremely flammable.
36	Irritating to eyes.
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

23.4	Do not breathe spray.
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**Restriction of occupation**

no

Decree for case of interference/ remarks not applicable

Classification according to VbF/ remarks not applicable

German TA LUFT remarks

not applicable

Water hazard class 2 classification according german water pollution law

Other regulations, restrictions and prohibition regulationsno

! 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:

R 12: Extremely flammable

R 67: Vapours may cause drowsiness and dizziness.

R 66: Repeated exposure may cause skin dryness or cracking.

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

R 22: Harmful if swallowed.

R 38 :Irritating to skin.

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

R 10: Flammable

R 37/38: Irritating to respiratory system and skin.

R 41: Risk of serious damage to eyes.

R 37: Irritating to respiratory system.

Safety data-sheet (91/155 EEC)

Printed 03.02.2004

Revision 03.02.2004

Metaflux Dry-Lube Spray

70-83

Sources of key data used

Material Safety Data Sheets of raw materials