
1. Identification of the substance/preparation

Name of product	Metaflux Hand Protection Foam Art-Nr. 70-28
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**

Water, stearic acid, cosmetical oils, thickener, detergents, propane, butane

Hazardous ingredients

CAS-No.	Name	[% weight]	Classification	
000074-98-6	propane	< 3	F+	R12
000106-97-8	butane	< 8	F+	R12

Additional advice

Use: skin protection

Cosmetical product; MSDS is not prescribed

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

- Fresh sprayed foam is light inflammable

4. First aid measures**General information**

no

In case of inhalation

not applicable

In case of skin contact

not applicable

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.

Physician's information / possible symptoms

no

Physician's information / possible dangers

unknown

Treatment (Advice to doctor)

Treat symptoms.

5. Fire-fighting measures

Suitable extinguishing material

Foam

Dry powder

Carbon dioxide

Water spray jet

Extinguishing material that may not be used for safety reasons

Strong 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

Generally not required

Additional information

Cool containers at risk with water spray jet.

6. Accidental release measures

Personal precautions

Keep away sources of ignition.

Environmental precautions

no

Methods for cleaning up/taking up

Flush away residues with water.

Additional Information

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

7. Handling and storage

Advice on safe handling

No special measures necessary if used correctly.

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

Storage temperature must not exceed 50°C (=122°F).

Storage group 2B

Fire class C

Information on storage stability

Storage time above 24 months.

8. Exposure controls / personal protection

Additional advice on system design

no

Safety data-sheet (91/155 EEC)

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Page	CAS-No.	Name	Code	[mg/m ³]	[ml/m ³]	Remark
	000074-98-6	propane	MAK	1800	1000	
	000106-97-8	butane	MAK	2400	1000	

Additional advice

no

Respiratory protection

Generally not required

Hand protection

Generally not required

Eye protection

Generally not required

Skin protection

Generally not required

General protective measures

Do not inhale aerosols

Hygiene measures

Do not eat or drink when working.

9. Physical and chemical properties

Form	Colour	Odour
aerosol	white foam	hardly noticeable

Data relevant for safety	Value	Temperature	at	Method	Remark
pH value in delivery state	ca. 7	20 °C			
Acid number					not applicable
Changes in physical state solid/fluid					not applicable
Changes in physical state gas					content may be frozen when stored below 0°C
Flash point	< 0 °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

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	Value	Temperature	at	Method	Remark
Upper explosion limit	ca. 11 Vol-%				informations concern to propellant only
Vapour pressure	ca. 3900 hPa	20 °C			
Density	ca. 0,95 g/cm ³	20 °C			
Bulk density					not applicable
Rel. vapour density					not applicable
Solubility in water					multimiscible
Solubility/other					not applicable
Partition coefficient (log p_{OW})					not determined
Viscosity 1					not determined
Viscosit 2					not determined
Solvent separation test					not applicable
Solvent concentration					no
Explosive properties					
Risk of bursting at temperatures exceeding 50°C					

10. Stability and reactivity

Conditions to avoid

no

Materials to avoid

no

Hazardous decomposition products

no

Thermal decomposition

Remark No decomposition if suitable 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

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Value/Validation	Species	Method	Remark
LC 50 acute inhalation			no data available
Irritability skin			no
Irritability eye			no
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)

Elimination rate	Method of analysis	Method	Validation
Physico-chemical degradability			not applicable
Biological degradability			not determined
Degradability			not determined
Biological eliminability			not applicable
Degradability according to WRMG			not applicable

Mobility and bioaccumulative potential

not determined

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

When low concentrations are discharged correctly into adapted biological sewage treatment plants, interference with the degradation activity of activated sludge is not likely.

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

13. Disposal considerations**Waste code No.**

16 05 05

Name of waste

gases in pressure containers other than those mentioned in 16 05 04

Recommendations for the product

Diluted solution may be taken to a biological sewage treatment plant, in case of approval of the relevant authorities.

Recommendations for packaging

material recycling EWC 150104

Recommended cleansing agent

no

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, flammable
UN-No. 1950
Class 2 / Code 5F
Hazard Label 2.1
Remarks
 Transportation as Limited Quantities (LQ 2); Marking: UN 1950 (rhombe)
 Remark in the transportation paper: 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. 2-13
Remarks
 Entry in transportation document: limited quantities
 Marks: AEROSOLS UN 1950

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**Remarks for classification**

Labelling is according to Directive 94/1/EC. Product does not require a hazard warning label.

R-phrases

- Fresh sprayed foam is light inflammable

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.

Fresh sprayed foam will be highly flammable for a short time

10 % by mass of the contents are flammable

Keep out of the reach of children.

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

1

german water pollution classification

Other regulations, restrictions and prohibition regulations

no

16. Other information

Training advice

Use the entries of this Material Safety Data Sheet

Recommend uses and restrictions

Observe care instructions

Sources of key data used

Material Safety Data Sheets of raw materials