

1. Identification of the substance/preparation

Name of product	Metaflux HT-Super plus Teflon Spray Art-Nr. 70-89
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**

Polyolefins, petroleum distillates, natural fats and oils, E.P.additive, polytetrafluoroethylene, aliphatic hydrocarbon, propane/butane

Hazardous ingredients

CAS-No.	Name	[% weight]	Classification
000067-63-0	Propane-2-ol	< 1	F;Xi R11-36-67
000074-98-6	propane	5 - 10	F+ R12
000106-97-8	butane	30 - 35	F+ R12
064742-48-9	Naphtha (petroleum), hydrotreated heavy	5 - 10	Xn R10-65-66
064742-49-0	Naphtha (petroleum), hydrotreated light	10 - 19,9	Xn; R11-38-51/53-65-67 F; N

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)

to CAS-No. 654742-48-9 : This material contains <0.1% Benzene an must not classified as carcinogen intended use: as 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

When used formation of explosive gas/air mixtures may be possible
Smoking of contaminated tobacco may cause polymer-smoke-fever

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.

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.

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

Get rid of contaminated tobacco wares

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

7. Handling and storage

Advice on safe handling

Smokers have to wash their hands thoroughly after using this product

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 above 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
000067-63-0	Propane-2-ol	MAK	500	200	Y, DFG
000074-98-6	propane	MAK	1800	1000	
000106-97-8	butane	MAK	2400	1000	
064742-48-9	hydrocarbon vapours		1000	200	
64742-49-0	hydrocarbon vapours	MAK	1000	200	

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

Avoid contaminating of tobacco wares

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

! 9. Physical and chemical properties**Form**

aerosol

Colour

yellowish

Odour

like petrol (gasoline)

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

Safety data-sheet (91/155 EEC)

Printed 10.06.2003

Revision 10.06.2003

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70-89

	Value	Temperature	at	Method	Remark
Changes in physical state gas					not applicable
Flash point	< 0 °C				
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	3000 - 3400 hPa	20 °C			
Density	0,68 g/cm ³	20 °C			
Bulk density					not applicable
Rel. vapour density					not applicable
Solubility in water					nearly 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. 27,5 %				
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

At burning formation of toxic fumes occur which by inhalation may cause polymer.smoke.fever

Thermal decomposition

Method no

Remark no

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				Sometimes short-term reddening of skin may occur.
Irritability eye				low
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	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	The product contains organically halogen, it can contribute to the adsorbable organic halogen value.		

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

no

General regulation

VOC = 0.192 kg/can

13. Disposal considerations

Waste code No.	Name of waste
16 05 04	gases in pressure containers (including halons) containing dangerous substances

Recommendations for the product

material recycling according to National or Local regulations

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, 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.	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

RemarksUN-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

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**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 self-classification to German water pollution class

Other regulations, restrictions and prohibition regulations

no

! 16. Other information**Training advice**

Use the entries of this Material Safety Data Sheet

Recommendend uses and restrictions

Observe care instructions

! Further information

R-Phrases from chapter 2:

R 11: Highly flammable

R 12: Extremely flammable

R 36: Irritating to eyes

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 38 :Irritating to skin.

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

R 10: Flammable

Sources of key data used

Material Safety Data Sheets of raw materials