

1. Identification of the substance/preparation

| | |
|---------------------------------|---|
| Name of product | Metaflux Chain Cling Spray Art-Nr. 70-88 |
| 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**

Fatty acid esters, polyolefins, phosphoric acid esters, organic solvents, propane/butane

Hazardous ingredients

| CAS-No. | Name | [% weight] | Classification |
|----------------|---|-------------------|--------------------------------|
| 000067-63-0 | propan-2-ol | < 10 | F, Xi R11-36-67 |
| 000074-98-6 | propane | 5 - 10 | F+ R12 |
| 000106-97-8 | butane | 35 - 40 | F+ R12 |
| 064742-49-0 | Naphtha (petroleum), hydrotreated light | < 20 | 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)

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

Using may cause explosive mixtures with air

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 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.

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

Do not discharge into the subsoil/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

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 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 | propan-2-ol | MAK | 500 | 200 | Y |
| 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 | |
| 64742-49-0 | hydrocarbon vapours | MAK | 1000 | 200 | |

Respiratory protection

Generally not required

Hand protection

Use glove made of nitrile (according to EN 374) in case of prolonged and intensive contact with the skin

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**
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 |
| Changes in physical state gas | | | | | not applicable |
| Flash point | < 0 °C | | | | |
| Flammable solid | | | | | not applicable |

Safety data-sheet (91/155 EEC)

Printed 10.06.2003

Revision 10.06.2003

Metaflux Chain Cling Spray

70-88

| | Value | Temperature | at | Method | Remark |
|---|---|-------------|----|--------|---|
| 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. 2500 - 3000 hPa | 20 °C | | | |
| Density | ca. 0,6825 g/cm ³ | 20 °C | | | |
| Bulk density | | | | | not applicable |
| Rel. vapour density | | | | | not applicable |
| Solubility in water | | | | | partially soluble |
| 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. 26 % | | | | |
| Explosive properties | When used formation of explosive mixtures may be possible | | | | |
| Additional information | no | | | | |

10. Stability and reactivity

Conditions to avoid

Warming of more than 50°C and use near sources of ignition (flames, sparks).

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 datas available for the preparation |
| LD 50 acute dermal | | | | no datas available for the preparation |
| LC 50 acute inhalation | | | | no datas available for the preparation |
| Irritability skin | | | | low |
| 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 destinated | | | |

Safety data-sheet (91/155 EEC)

Printed 10.06.2003

Revision 10.06.2003

Metaflux Chain Cling Spray

70-88

| | Elimination rate | Method of analysis | Method | Validation |
|--|---|--------------------|--------|------------|
| 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 | not applicable | | | |

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 = 0.195 kg/spray-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

material recycling according to National or Local regulations

Recommendations for packaging

material recycling EWC 150104

Recommended cleansing agent

Hydrocarbon solvent

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 chapter3.4 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**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.

Hazardous ingredients for labeling

butane, propane

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/ not applicable
remarks

Classification according to VbF/ not applicable
remarks

German TA LUFT remarks

not applicable

Water hazard class 1 classification according german water pollution law

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 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
