

Safety data sheet

in accordance with 2001/58/EC

Date of printing: 01.01.2007

1. Identification of the substance/preparation and company:

- **Trade name:** ProLine marking sprays

- **Identification of the company:**

MORAVIA
Gesellschaft für Verkehrszeichen
und Signalträger mbH
D-65191 Wiesbaden

Tel (0049/611/95020)

- **Emergency telephone number:**

Anti-poison centre:
Spanndauer Damm 130, Haus 10
D-14050 Berlin Tel.: 030/19240

2. Composition/data on the components

- **Chemical characterisation:** Compressed gas packaging with combustible propellant.
Active ingredient is an acrylic resin.

- **Description:** Preparation from the substances listed below with non-dangerous admixtures.

- **Hazardous content substances:**

CAS-No.	Description	%	Symbol	R-sentences
67-64-1	Aceton	5-10	F, Xi	11,36,66,67
123-86-4	n-Buthylacetat	über 30		10,66,67
74-98-6	Propan	5-15	F+	12
106-97-8	Butan	15-30	F+	12

3. Hazards identification

- **Hazard characterisation:** F+ Extremely flammable

- **Specific hazard references for humans and the environment:**

R 12 Extremely flammable
R 66 Repeated exposure may cause skin dryness or cracking.
R 67 Vapours may cause drowsiness and dizziness.

- **Classification system:** Directive 94/1 EEC. The classification corresponds to the current EC lists (version of 2004), but is supplemented by data from the professional literature and by company information.

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4. First aid measures

- **General direction:** In case poisoning symptoms appear, immediately contact a physician. Contact the poison advising centre (030/19240)
 - **after inhalation:** Persons suffering from headaches, nausea and dizziness should be taken out into the fresh air.
 - **after skin contact:** wash off with water and soap.
 - **after eye contact:** Immediately rinse the eyes for several minutes - with eyelids held open - under flowing water. Then consult a physician.
 - **after swallowing:** If swallowed, do not induce vomiting: seek medical advice immediately.
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5. Fire-fighting measures

- **Appropriate extinguishing substances:** Foam, powder. The compressed gas packaging should be cooled by means of dispersed water spray.
 - **For safety reasons unsuitable extinguishing agents:** water in direct full spray
 - **Particular protective gear:** wear breathing protection device
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6. Accidental release measures

- **Personal precautionary measures:** Ensure good ventilation. Remove sources of ignition.
 - **Environmental protection measures:** Do not allow to penetrate into the sewers, waterways or soil.
 - **Procedures for cleaning/absorption:** Soak up with liquid-binding material. Dispose of (sand, universal binder, sawdust) residues as waste in accordance with point 13
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7. Handling and storage

- **Handling:**
 - a) **Directions for safe handling:** Ensure good ventilation/air suction at the work site.
 - b) **Directions for fire/explosion protection:** Keep ignition sources away. Don't smoke.
- **Storage:**
 - a) **Requirement for storage areas and containers:** Ensure good ventilation: TRG300
 - b) **Co-storage instructions:** unnecessary
 - c) **Further data on the storage conditions:**
 - d) **Warehouse class:** TRG300

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8.Exposure limit and personal protective gear

- **Additional direction on the design of technical facilities:**
- **Components with workplace-related limits that must be monitored:**

CAS-No.	Name of the substance	%	Type	Value	Unit
67-64-1	Aceton	5-10	MAK	1200	mg/m ³
				500	ml/m ³
123-86-4	n-Butylacetat	über 30	MAK	700	mg/m ³
				150	ml/m ³
74-98-6	Propan	5-15	MAK	1800	mg/m ³
				1000	ml/m ³
106-97-8	Butan	15-30	MAK	1900	mg/m ³
				800	ml/m ³

(*MWC = Maximum Workplace Concentration)

- **Additional instruction:** The TRGS 900 valid at the time of drafting (April 2001) served as the basis.

- **Personal protective gear:**

a) General protection and hygiene measures:

Keep away from food, drinks and animal feed. Immediately remove soiled or impregnated clothing. Wash hands before breaks and at the end of each working shift. Avoid contact with the eyes and the skin.

b) Breathing protection: In case of poor ventilation, use breathing filter device. Breathing filter A1, identification colour brown.

c) Hand protection: solvent-resistant protective gloves

d) Eye protection: if applicable, close-fitting protective goggles

9.Physical and chemical characteristics

- **Form:** liquid
- **Colour:** in accordance with product description
- **Odour:** of organic solvents
- **Condition change:** Upon exiting from the can at 20°C, the propellant share converts from a liquid to a gaseous state.

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- **Melting point/melting range:** not applicable
- **Boiling point/boiling range:** not applicable
- **Flash point:** not applicable
- **Ignition temperature:** 490° Celsius
- **Self-ignition capacity:** the product does not present a danger of explosion, yet the formation of explosive vapour/air mixtures is possible.
- **Explosion limits:** lower: 1,5 volume %
upper: 9,5 volume %
- **Vapour pressure:** at 20° C 3-4 bar
at 50° C 10,4 bar
- **Density:** at 20° C 0.95 g/ml lacquer
- **Solubility/miscibility in water:** not miscible
- **Viscosity:** 15-16 DIN 4
- **VOC :** 425 gr

10. Stability and reactivity

- **Thermal decomposition/conditions to be avoided:** No decomposition when used in accordance with directions.
- **Dangerous reactions:** At temperatures over 50°C the can will burst after exceeding the bursting pressure (around 13 - 14 bar). Ensure good ventilation during and after the work. During use, the development of explosive, easily-ignited vapour/air mixtures is possible.
- **Dangerous decomposition products:** No dangerous decomposition products are known.

11. Toxicological information

Toxicological (health) effects and possible symptoms after exposure:

Information on the product:

The product was classified on the basis of the calculation procedure of the preparations directive (1999/45/EC). Irritation is possible by contact of the product with the skin, respiratory organs or the eyes. Solvent vapours have a narcotic effect if inhaled in high concentrations

Information on the component(s):

n-Butyl acetate (CAS number: 123-86-4 , EINECS number: 204-658-1)

Acute toxicity: LD50-oral rat >2000 mg/kg

Acute toxicity: Lethal dose-dermal, rabbit > 2000 mg/kg

Acute toxicity: inhalation, see TLV, drowsiness and dizziness.

Skin defatting properties leading to dermatitis and enhanced skin permeability.

Mutagenicity: negative in the Ames test.

Acetone; propan-2-one; propanone (CAS number: 67-64-1 , EINECS number: 200-662-2)

Acute toxicity: LD50-oral rat >2000 mg/kg

Acute toxicity: Lethal dose-dermal, rabbit > 2000 mg/kg

Acute toxicity, inhalation: drowsiness and dizziness.

Eye irritation: reversible corneal opacity, severe redness and oedema.

Skin defatting properties leading to dermatitis and enhanced skin permeability.

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12. Ecological information

General instructions: water endangerment class 1 (VwVwS Mai 1999). Not to be allowed into the ground water, waterways or sewer system.

13. Directions for disposal

- **Product:** residue-free can should be directed to tinplate recycling
 - **Schlüsselnummer:** EAK-Nr.150104 (EG)
 - **Uncleaned packaging:** deposit cans with residues at the collection point for old lacquers.
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14. Transport information

- **Statistical commodity number:** 32082090
 - **Land transport ADR/RID und GGVS/GGVE (cross-border/domestic):**
 - ADR/RID-GGVS/E class: 2
 - Figure/letter: 5 F , limited quantity LQ2
 - UN-Number: 1950 Aerosol
 - **Ocean-going vessel transport IMDG/GGVSee:**
 - IMDG/GGVSee-class: 2.1
 - Page: 2102
 - UN-Number: 1950 Aerosol
 - Packaging group: -
 - EMS-Number: 2-13
 - MFAG: KAP 620
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15. Regulatory information

- **Characterisation according to EC Directives:**
88/379/EEC, 90/492/EEC, 93/18/EEC, 90/35/EEC, 91/442/EEC, 91/155/EEC, 91/325/EEC, 91/326/EEC, 91/410/EEC, 91/632/EEC, 92/37/EEC, 93/21/EEC, 93/72/EEC, 91/322/EEC, 91/382/EEC, 90/394/EEC, 94/1/EEC, 67/548/EWG EWG ,91/155 EG, 2001/58/EG, 2001/59/EG, 2001/60/EG
- **Identification letter and hazard description of the product:** F+ Extremely flammable
- **Hazard-determining components for labelling:** Propane, Butane
- **R-sentences:** R 12 Extremely flammable
R 66 Repeated exposure may cause skin dryness or cracking.
R 67 Vapours may cause drowsiness and dizziness.
- **S-sentences:** S 2 Keep out of the reach of children
S 25 Avoid contact with eyes
S 9 Keep container in a well-ventilated place
S 16 Keep away from sources of ignition - No smoking
S 23 Do not breathe aerosol
S 24 Avoid contact with skin

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- Particular characterisation of specific preparations:

- National regulations: (for Germany) Gefahrstoffverordnung (Hazardous Substances Regulation) November 2004 , Aerosol Directive

- Classification under VbF: dropped

- Air technical guide: classe 3

- Water endangerment class: 1 (VwVwS Mai 1999)

16. Other information

Warning!

Container is pressurised. Don't open them with force or damage or burn them, even after use. Keep out of the reach of children. Do not breathe spray. Avoid contact with skin and eyes. Keep containers in a well-ventilated place. Spray mist and lacquer vapours are lightly flammable. Don't spray in the direction of flames or incandescent objects. Keep away from sources of ignition-No smoking. Use only in well-ventilated areas . In use, may form flammable/explosive vapour-air mixture. Protect against sunlight and heating over 50 ° C. Deposit only completely empty cans at Central Garbage Collection Points. N°EAK-150104. Partially empty cans should be disposed of in duly designated Garbage Collection Points. Solvent abuse can kill instantly. Do not empty into drains. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

These data are based on the current state of our knowledge, but they do not represent a guarantee of product characteristics and do not form the basis of any contractual legal relationship.

- Division issuing data sheet: Laboratory department (Quality assurance)