

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 01.06.2015

Version number 9

Revision: 01.06.2015

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

**Trade name: Release Agent MK-10080**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Application of the substance / the mixture** Release Agent

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer/Supplier:**

Muench Chemie International GmbH

Viernheimer Strasse 70 - 76

D-69469 Weinheim

GERMANY

Phone: +49 (6201) 99 83 - 0

Fax: +49 (6201) 1 71 95

Mail: msds@muench-chemie.com

Web: www.muench-chemie.com

**Further information obtainable from:** Laboratory

**1.4 Emergency telephone number:**

Muench Chemie International GmbH: +49 (6201) 99 83 - 0 (7:30am-4:00pm) or +49 (171) 37 37 502 (24h)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.

**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms** GHS02

**Signal word** Warning

**Hazard statements**

H226 Flammable liquid and vapour.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground/bond container and receiving equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

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**vPvB:** Not applicable.

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**SECTION 3: Composition/information on ingredients**

**3.2 Chemical characterisation: Mixtures**

**Description:** Mixture: consisting of the following components.

**Dangerous components:**

CAS: 75-65-0	2-methylpropan-2-ol	1-5%
EINECS: 200-889-7	Xn R20; F R11	
	Flam. Liq. 2, H225; Acute Tox. 4, H332	
CAS: 57-55-6	propane-1,2-diol	<1%
EINECS: 200-338-0	Acute Tox. 4, H302	
CAS: 1336-21-6	ammonia	<1%
EINECS: 215-647-6	C R34; N R50	
	Skin Corr. 1B, H314; Aquatic Acute 1, H400	

**Additional information:** For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information:** Immediately remove any clothing soiled by the product.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing agents:**

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**5.2 Special hazards arising from the substance or mixture** Hydrogen fluoride (HF)

**5.3 Advice for firefighters**

**Protective equipment:** Wear self-contained respiratory protective device.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**6.4 Reference to other sections**

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.

**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Store away from oxidising agents.

**Further information about storage conditions:** Keep container tightly sealed.

**7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

**Additional information about design of technical facilities:** No further data; see item 7.

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:** Wash hands before breaks and at the end of work.

**Respiratory protection:** Not required.

**Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Rubber gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:**



Tightly sealed goggles

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Cloudy
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value at 20 °C:</b>	9

**Change in condition**

<b>Melting point/Melting range:</b>	0 °C
<b>Boiling point/Boiling range:</b>	83 °C
<b>Flash point:</b>	56 °C
<b>Flammability (solid, gaseous):</b>	Not applicable.

**Ignition temperature:**

<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Product is not selfigniting.

**Danger of explosion:** Not determined.

**Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

**Vapour pressure at 20 °C:** 23 hPa

<b>Density at 20 °C:</b>	1 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

**Solubility in / Miscibility with**

**water:** Fully miscible.

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

**Solvent content:**

**Organic solvents:** 2,5 %

**9.2 Other information** No further relevant information available.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

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**10.6 Hazardous decomposition products:** Hydrogen fluoride

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

**Primary irritant effect:**

**Skin corrosion/irritation** No irritant effect.

**Serious eye damage/irritation** No irritating effect.

**Respiratory or skin sensitisation** No sensitising effects known.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

**Additional ecological information:**

**General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

**14.1 UN-Number**

**ADR, IMDG, IATA**

UN1993

**14.2 UN proper shipping name**

**ADR**

1993 FLAMMABLE LIQUID, N.O.S. (not viscous)  
(BUTANOLS)

**IMDG, IATA**

FLAMMABLE LIQUID, N.O.S. (BUTANOLS)

**14.3 Transport hazard class(es)**

**ADR, IMDG, IATA**



**Class**

3 Flammable liquids.

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<b>Label</b>	3
<b>14.4 Packing group</b>	
<b>ADR, IMDG, IATA</b>	III
<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
<b>Danger code (Kemler):</b>	30
<b>EMS Number:</b>	F-E, <u>S</u> -E
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	
<b>ADR</b>	
<b>Limited quantities (LQ)</b>	5L
<b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>Transport category</b>	3
<b>Tunnel restriction code</b>	D/E
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	5L
<b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<b>UN "Model Regulation":</b>	UN1993, FLAMMABLE LIQUID, N.O.S. (not viscous) (BUTANOLS), 3, III

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National regulations:**

**Technical instructions (air):**

**Class Share in %**

**NK 1 - 2,5**

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H332 Harmful if inhaled.
- H400 Very toxic to aquatic life.
- R11 Highly flammable.
- R20 Harmful by inhalation.
- R34 Causes burns.

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R50 Very toxic to aquatic organisms.

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**Department issuing MSDS:** Laboratory

**Contact:** Mr. Marek

**Abbreviations and acronyms:**

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

\* **Data compared to the previous version altered.**

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