

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

Printing date 08.12.2011

Version number 10

Revision: 08.12.2011

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

**Product identifier**

**Trade name:** Release Agent MK-100

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

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

**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: info@muench-chemie.com

Web: www.muench-chemie.com


**Further information obtainable from:** Laboratory

**Emergency telephone number:** Muench Chemie International GmbH: +49 (6201) 99 83 - 0 or +49 (171) 37 37 502


**2 Hazards identification**

**Classification of the substance or mixture**


**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 Xn; Harmful


R65: Harmful: may cause lung damage if swallowed.

 Xi; Irritant

R38: Irritating to skin.

 F; Highly flammable

R11: Highly flammable.

 N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

**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.

Has a narcotizing effect.

**Classification system:**

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

**Label elements**

**Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

**Code letter and hazard designation of product:**

Xn Harmful

F Highly flammable

N Dangerous for the environment

**Hazard-determining components of labelling:**

Naphtha (petroleum), hydrotreated light, < 0,1 % Benzene

Solvent naphtha (petroleum), light arom., < 0,1 % Benzene

**Risk phrases:**

11 Highly flammable.

38 Irritating to skin.

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

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

(Contd. on page 2)

**Safety data sheet**  
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Version number 10

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(Contd. of page 1)

**Safety phrases:**

- 9 Keep container in a well-ventilated place.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe fumes/aerosol.
- 33 Take precautionary measures against static discharges.
- 51 Use only in well-ventilated areas.
- 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 64742-49-0	Naphtha (petroleum), hydrotreated light, < 0,1 % Benzene	> 50%
EINECS: 265-151-9	Xn R65; Xi R38; F R11; N R51/53	
	R67	
	Carc. Cat. 3, Muta. Cat. 3	
CAS: 64742-95-6	Solvent naphtha (petroleum), light arom., < 0,1 % Benzene	10 - 20%
EINECS: 265-199-0	Xn R65; N R51/53	
	R10-66-67	
	Carc. Cat. 3, Muta. Cat. 3	

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

### 4 First aid measures

**Description of first aid measures****General information:**

Take affected persons out of danger area and lay down.

Immediately remove any clothing soiled by the product.

**After inhalation:** In case of unconsciousness place patient stably in side position for transportation.**After skin contact:**

If skin irritation continues, consult a doctor.

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.**Information for doctor:****Most important symptoms and effects, both acute and delayed**

Headache

Dizziness

Dizziness

Nausea

Unconsciousness

**Hazards**

Danger of pulmonary oedema.

Danger of pneumonia.

Danger of impaired breathing.

**Indication of any immediate medical attention and special treatment needed** No further relevant information available.

### 5 Firefighting measures

**Extinguishing media****Suitable extinguishing agents:** CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

(Contd. on page 3)

**Safety data sheet**  
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Version number 10

Revision: 08.12.2011

**Trade name: Release Agent MK-100**

(Contd. of page 2)

**Advice for firefighters****Protective equipment:**

Wear fully protective suit.

Wear self-contained respiratory protective device.

**Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

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

Ensure adequate ventilation

Keep away from ignition sources.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Wear protective equipment. Keep unprotected persons away.

**Environmental precautions:**

Do not allow to penetrate the ground/soil.

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

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

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

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Dispose of the material collected according to regulations.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

**Handling:****Precautions for safe handling**

Ensure that suitable extractors are available on processing machines

Keep receptacles tightly sealed.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:**

Provide solvent resistant, sealed floor.

Store in a cool location.

**Information about storage in one common storage facility:**

Store away from oxidizing agents.

Do not store together with oxidizing and self-inflammable substances

The official regulations have to be considered.

**Further information about storage conditions:**

Store receptacle in a well ventilated area.

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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

EU

(Contd. on page 4)

**Safety data sheet**  
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Version number 10

Revision: 08.12.2011

**Trade name: Release Agent MK-100**

(Contd. of page 3)

### 8 Exposure controls/personal protection

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

**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.

**Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

**Respiratory protection:**

Short term filter device:

Filter AX

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**



Protective gloves

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**

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

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

**Body protection:** Protective work clothing

### 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

**Appearance:**

**Form:** Fluid

**Colour:** Colourless

**Odour:** Characteristic

**Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 60 °C

**Flash point:** < 0 °C

**Ignition temperature:** 450 °C

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

(Contd. on page 5)

**Safety data sheet**  
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Version number 10

Revision: 08.12.2011

**Trade name: Release Agent MK-100**

(Contd. of page 4)

**Explosion limits:**

**Lower:** 0,7 Vol %  
**Upper:** 7,5 Vol %

**Vapour pressure at 20°C:** 5 hPa

**Density at 20°C:** 0,73 g/cm<sup>3</sup>

**Solubility in / Miscibility with water:** Not miscible or difficult to mix.

**Viscosity:**

**Dynamic:** Not determined.  
**Kinematic:** Not determined.

**Solvent content:**

**Organic solvents:** 96,6 %  
**Other information** No further relevant information available.

\* **10 Stability and reactivity**

**Reactivity****Chemical stability**

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

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

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

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

**Hazardous decomposition products:** No dangerous decomposition products known.

\* **11 Toxicological information**

**Information on toxicological effects****Acute toxicity:****LD/LC50 values relevant for classification:****64742-49-0 Naphtha (petroleum), hydrotreated light, < 0,1 % Benzene**

Oral LD50 > 2000 mg/kg (Ratte)

Dermal LD50 > 2000 mg/kg (rbt)

Inhalative LC50/4 h > 5 mg/l (Ratte)

**64742-95-6 Solvent naphtha (petroleum), light arom., < 0,1 % Benzene**

Oral LD50 > 6800 mg/kg (Ratte)

Dermal LD50 > 3400 mg/kg (rab)

Inhalative LC50/4 h > 10,2 mg/l (Ratte)

**Primary irritant effect:**

**on the skin:** Irritant to skin and mucous membranes.

**on the eye:** No irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

\* **12 Ecological information**

**Toxicity**

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

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

**Behaviour in environmental systems:**

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

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

**Ecotoxicological effects:**

**Remark:** Toxic for fish

**Additional ecological information:****General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

(Contd. on page 6)

**Safety data sheet**  
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Version number 10

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**Trade name: Release Agent MK-100**

(Contd. of page 5)

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

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

**13 Disposal considerations**

**Waste treatment methods**

**Recommendation**

Must be specially treated adhering to official regulations.

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.

**14 Transport information**

**UN-Number**

**ADR, IMDG, IATA**

UN1866

**UN proper shipping name**

**ADR**

1866 RESIN SOLUTION (vapor pressure at 50°C at most 110 kPa)

**IMDG, IATA**

RESIN SOLUTION

**Transport hazard class(es)**

**ADR**



**Class**

3 Flammable liquids.

**Label**

3

**IMDG, IATA**



**Class**

3 Flammable liquids.

**Label**

3

**Packing group**

**ADR, IMDG, IATA**

II

**Environmental hazards:**

**Marine pollutant:**

No

**Special marking (ADR):**

Symbol (fish and tree)

**Special precautions for user**

Warning: Flammable liquids.

**Danger code (Kemler):**

33

**EMS Number:**

F-E,S-E

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**Transport/Additional information:**

**ADR**

**Tunnel restriction code**

D/E

EU

(Contd. on page 7)

**Safety data sheet**  
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Version number 10

Revision: 08.12.2011

**Trade name: Release Agent MK-100**

(Contd. of page 6)

**15 Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations:****Technical instructions (air):****Class Share in %****NK > 50****Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**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**

R10 Flammable.

R11 Highly flammable.

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

**Department issuing MSDS:** Laboratory**Contact:** Mr. Marek**\* Data compared to the previous version altered.**