

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

Printing date 26.07.2011

Version number 6

Revision: 26.07.2011

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

**Product identifier**

**Trade name:** Cleaner R-51

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

**Application of the substance / the preparation** Cleaning agent/ Cleaner

**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**

**Xi**; Irritant

R41: Risk of serious damage to eyes.

**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.

**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:**

**Xi** Irritant

**Risk phrases:**

41 Risk of serious damage to eyes.

**Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of water.

39 Wear eye/face protection.

51 Use only in well-ventilated areas.

60 This material and its container must be disposed of as hazardous waste.

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**3 Composition/information on ingredients**

**Chemical characterization: Mixtures**

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

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**Dangerous components:**

CAS: 2687-91-4	N-Ethyl-2-Pyrrolidon	> 50%
EINECS: 220-250-6	Xi R41	
CAS: 8028-48-6	Terpene	1 - 5%
EINECS: 232-433-8	Xn R65; Xi R38 R10	

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

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

**After skin contact:**

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Rinse out mouth and then drink plenty of water.

**Information for doctor:**
**Most important symptoms and effects, both acute and delayed** No further relevant information available.

**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.

**Special hazards arising from the substance or mixture** No further relevant information available.

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

Wear self-contained respiratory protective device.

Wear fully protective suit.

**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

Wear protective clothing.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

**Environmental precautions:**

Do not allow to penetrate the ground/soil.

Dilute with plenty of water.

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).

Ensure adequate ventilation.

**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**

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

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Prevent formation of aerosols.

**Information about fire - and explosion protection:** Fumes can combine with air to form an explosive mixture.**Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** Provide solvent resistant, sealed floor.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep container tightly sealed.**Specific end use(s)** No further relevant information available.

### 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.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

**Respiratory protection:**

Not necessary if room is well-ventilated.

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:**

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**

Butyl rubber, BR

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:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.

**Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	170 °C

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<b>Flash point:</b>	> 65 °C
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	245 °C
<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Product is not selfigniting.
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	1,3 Vol %
<b>Upper:</b>	7,7 Vol %
<b>Vapour pressure:</b>	Not determined.
<b>Density at 20 °C:</b>	0,99 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Fully miscible.
<b>Segregation coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent content:</b>	
<b>Organic solvents:</b>	5,0 %
<b>Other information</b>	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** Reacts with strong acids and alkali.

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

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

#### Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO<sub>x</sub>)

### 11 Toxicological information

#### Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values relevant for classification:

#### 8028-48-6 Terpene

Oral LD50 > 5700 mg/kg mg/kg (Ratte)

Dermal LD50 > 5000 mg/kg (Ratte)

> 2000 mg/kg (rbt)

#### Primary irritant effect:

**on the skin:** No irritant effect.

**on the eye:** Strong irritant with the danger of severe eye injury.

**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

EU

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### 12 Ecological information

**Toxicity****Acquatic toxicity:** No further relevant information available.**Persistence and degradability** No further relevant information available.**Other information:** The product is biodegradable.**Behaviour in environmental systems:****Bioaccumulative potential** No further relevant information available.**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.

**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 not be disposed together with household garbage. Do not allow product to reach sewage system.**Uncleaned packaging:****Recommendation:** Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

**UN-Number****ADR, IMDG, IATA**

Void

**UN proper shipping name****ADR, IMDG, IATA**

Void

**Transport hazard class(es)****ADR, IMDG, IATA****Class**

Void

**Packing group****ADR, IMDG, IATA**

Void

**Environmental hazards:****Marine pollutant:**

No

**Special precautions for user**

Not applicable.

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

Not applicable.

### 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations:****Technical instructions (air):****Class Share in %****NK** 1 - 5**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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.

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**Trade name: Cleaner R-51***(Contd. of page 5)***Relevant phrases**

R10 Flammable.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R65 Harmful: may cause lung damage if swallowed.

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

EU