

Safety Data Sheet

According to EC Directive 91/155/EEC

1. Identification of the substance / preparation and of the company / undertaking

Identification of the product: Orange II Solution

Product name: Orange II Solution

Company / undertaking identification:

Company:

Emergency telephone No.:

Telefax:

2. Composition / information on ingredients

Chemical characterization:

Formula Hill:

Symbol:

F, T

R-phrases:

11-23/24/25-39/23/24/25

S-phrases:

CAS-number:

67-56-1

EC-number:

200-659-6

Content:

≥ 20 - < 50%

3. Hazards identification

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

4. First aid measures

After inhalation:

fresh air. If breathing stops apply mechanical ventilation, if necessary oxygen mask. Call in physician.

After skin contact:

wash off with plenty of water. Remove contaminated clothing.

After eye contact:

rinse out with plenty of water with the eyelid held wide open for at least 10 minutes. Call in ophthalmologist.

After swallowing:

fresh air. Induce vomiting. Make victim drink ethanol (e.g. drinking glass of a 40% alcoholic beverage). Call in physician, mentioning methanol ingestion.

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5. Fire-fighting measures

Suitable extinguishing media: CO₂, powder, spray water, foam.

Special risks: Combustible. Vapours heavier than air. Forms explosive mixtures with air at ambient temperatures. Beware of backfiring. Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective equipment for fire fighting:

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Other information:

Prevent fire-fighting water from entering surface water or groundwater. Cool container with spray water from a safe distance.

6. Accidental release measures

Procedures for cleaning / absorption:

Take up with liquid-absorbent material. Forward for disposal. Clean up affected area.

Person-related precautionary measures:

Do not inhale vapours / aerosols. Ensure supply of fresh air in enclosed rooms. Avoid substance contact.

Environmental-protection measures:

Do not allow to enter sewerage system; risk of explosion!

7. Handling and storage

Handling:

Keep away from sources of ignition. Take measures to prevent electrostatic charging. Work under hood. Do not inhale substance. Avoid generation of vapours / aerosols.

Storage:

Tightly closed in a well-ventilated place. Away from sources of ignition and heat. At +15°C to +25°C.
Accessible only for authorized persons.

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8. Exposure controls / personal protection

Specific control parameter:

TRGS 903 (BAT) Germany

Name: Methanol
Parameter: Methanol
Values: 30 mg/l
Test material: urine
Test extraction, time: c, b

EC

Name: Methanol
Value: 200 ml/m³
260 mg/m³
Skin resorption: H (Risk of skin absorption).

TRGS900

Name: Methanol
Value: 200 ml/m³
270 ml/m³
Peak limit: 4 exceeding-factor: 4-fold in 15 minutes.
Embryotoxic: Y Substances where no foetotoxic risk is to be expected when observing the maximum allowable concentration(Mac Germany) and the biological tolerance value at the workplace (BAT Germany).
Skin resorption: Risk of skin absorption.

Personal protective equipment:

Respiratory protection: required when vapours / aerosols are generated.
Eye protection: required.
Hand protection: In full contact: Glove material: butyl rubber
Layer thickness: 0.7 mm
Breakthrough time: > 480 Min.
In splash contact: Glove material: viton
Layer thickness: 0.7 mm
Breakthrough time: > 120 Min.

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374. The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Industrial hygiene: Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Under no circumstances eat or drink at workplace. Work under hood. Do not inhale substance.

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9. Physical and chemical properties

Form:	liquid	
Colour:	orange red	
Odour:	alcohol like	
pH value:	(20°C)	7.0-7.5
Melting point:		not available
Boiling point:		not available
Ignition temperature:		not available
Flash point:		17 °C
Explosion limits	lower:	not available
	upper:	not available
Density:	(20°C)	~ 0.83 °C
Solubility in water:	(25°C)	soluble

10. Stability and reactivity

Conditions to be avoided:	Warming.
Substances to be avoided:	Risk of explosion with: oxidizing agents (i.a. perchloric acid, perchlorates, salts of oxyhalogenic acids, CrO ₃ , halogen oxides, nonmetallic oxides, chromosulfuric acid, chlorates), hydrides, zinc diethyl, halogens, magnesium in powder form, hydrogen peroxide. Exothermic reaction with: acid halides, acid anhydrides, acids, alkaline earth metals.
Hazardous decomposition products:	No information available.
Further information:	Unsuitable working materials: various plastics, aluminium, zinc alloys. Explosible with air in a vapourous / gaseous state.

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11. Toxicological information

Acute toxicity:

LD₅₀ (Inhalation, rat): 64000 ppm(V) /4 (Methanol).

LD₅₀ (oral, rat): 5628 mg/kg (Methanol).

LD₅₀ (oral human): 143 mg/kg (Methanol).

The literature data available to us do not conform with the labelling prescribed by the EC. The EC has dossiers which have not been published.

Further toxicological information

After inhalation of vapours: Irritation symptoms in the respiratory tract.

After skin contact: Slow absorption.

After eye contact: Slight irritations, mucosal irritations.

After swallowing: Absorption.

After absorption: Nausea, vomiting, headache, dizziness, inebriation, impaired vision, blindness (Irreversible damage of the optical nerve.).

Systemic effects: Acidosis, drop in blood pressure, agitation, spasm, narcosis, coma. Symptoms may occur after a latency period has elapsed.

Further data

The product should be handled with the care usual when dealing with chemicals.

12. Ecological information

Ecotoxic effects: Quantitative data on the ecological effect of this product are not available.

Further ecologic data: Do not allow to enter waters, waste water, or soil.

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations. Under www.retrologistik.de you will find country- and substance-specific information as well as contact partners.

Packaging:

Packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Under www.retrologistik.de you will find special information on the respective national conditions as well as contact partners.

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14. Transport information

Road & Rail	ADR, RID UN 1992	Entzündbarer flüssiger Stoff, giftig, n.a.g (Ethanol-Methanol Lösung), 3, (6.1), II
Inland waterway	ADN, ADNR	not tested
Sea	IMDG-Code UN 1992 Ems	Flammable liquid, toxic, n.o.s. (Ethanol-Methanol-Solution), 3, II F-E S-D
Air	CAO, PAX UN 1992	Flammable liquid, toxic, n.o.s. (Ethanol-Methanol-Solution), 3, (6.1), II

The transport regulations are cited according to international regulations and in the form applicable in Germany. Possible national deviations in other countries are not considered.

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15. Regulatory information

Labelling according to EC Directives:

Symbol:	F T	Labeling:	Highly flammable Toxic
R-phrases:	11-23/24/25-39/23/24/25		High flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
S-phrases:	7-16-36/37-45		Keep container tightly closed. Keep away from sources of ignition - no smoking. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Reduced labelling (199/45/EC, Art.10,4)

Symbol:	F T	Labeling:	Highly flammable Toxic
R-phrases:	23/24/25-39/23/24/25		Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
S-phrases:	36/37-45		Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

German regulations:

Storage class VCI:	3 A
Water pollution class:	1 (slightly polluting substance) VwVwS Anh. 4
Data sheet of the Chemical:	M017 Solvents
Professional Association	M051 Dangerous chemical substances
Local regulations on chemical accidents:	2 7b

The employment restrictions for young workers in accordance with section 22 of the Youth Employment Protection Law (JArbSchG) are to be observed.

The employment restrictions for expectant and nursing mothers in accordance with sections 4 and 5 of the Maternity Protection Guideline (MuSchRiV) are to be observed.

16. Other information

Reason for alteration.
General update.