

EC Material Safety Data Sheet according to EC directives 93/12/EEC and 2001/58/EC

1. Product and company name

1.1 Trade name: CL-TES 090

1.2 Company: REA Kennzeichnung und Codierung GmbH
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D-64276 Darmstadt
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2. Composition / Data of constituents

2.1 Chemical characterization:

Composition: Mixture of polar organic solvents

2.2 Hazardous ingredients:

Substance identity	EC Nr.:	CAS Nr.:	Content %:	Symbol:	R phrases:
N-Propanol	200-746-9	71-23-8	> 95	F, Xi	11,41,67

3. Hazardous identification

Special hazard information with regard to health and environment:

Highly flammable liquid. Risk of serious damage to eyes. Vapours may cause drowsiness and daze.

Symptoms for man:

N-Propanol:

Risk of serious damage to eyes. Important skin degreasing properties. May cause dizziness, headache, perceptive trouble. Can cause depression of the central nervous system.

4. First aid measures

General advice:

Take off immediately all contaminated clothing. If there is a risk that casualty is losing consciousness, lay him and move him safely on his side.

Inhalation:

Move casualty to fresh air. If there is respiratory distress, give oxygen. Seek immediately medical attention.

Skin contact:

Wash affected area thoroughly with soap and copious amounts of water.

Eye contact:

Remove contact lenses. Rinse immediately with copious amounts of water (at least 15 minutes long).

Seek immediately medical attention.

Swallowing:

Have the casualty take a rest. Seek immediately medical attention.

Have the casualty drink some water (200 ml). Do not induce vomiting. NO MILK, NO CASTOR OIL.

The doctor will have to decide which measures are to be taken.

5. Fire fighting measures

The vapours of the solvents contained in the mixture are heavier than air and collect on the ground.
The product is inflammable. Contact with the air may lead to explosive mixtures.
The product is by part miscible in water.

5.1 Extinguishing media:

Convenient extinguishing media are: Alcohol-resistant foam, carbon dioxide, dry powder, water fog and water spray.
Do NOT use: Water jet

5.2 Hazards due to gas formation and / or decomposition products:

A fire can generate the following gases: Carbon oxide, nitrogen oxide and other by part irritating combustion vapours.

5.3 Special protective equipment during fire fighting:

Wear self-contained breathing apparatus with pressure equipment as well complete protective clothing.
Prevent water used for fire fighting from entering sewers or ground water.

6. Accidental release measures

Personal protection:

Avoid sources of ignition. Do not smoke. Do not breathe in vapours/aerosol. Avoid contact with the eyes and the skin. Wear appropriate protective gloves (Latex, Vinyl, Nitril are only resistant to a limited extent. Butyl rubber is resistant). Wear safety glasses/goggles. If no exhauster available, wear breathing filter (Class A Braun).

Environmental protection:

Prevent vapours from developing by covering with damp cloth. Do not allow to enter sewers, basement or ground water. In case of emergency stem by using appropriate measures. Keep away from sources of ignition. Do not smoke.

After spillage/leakage:

Absorb spills with non-combustible, liquid-binding material (such as sand, silica gel, multi-purpose binding agent, Oil-Dry®, Dresser-Dri®). Clean with water. Dispose of product and of all cloth and cleaning agents contaminated by the product according to regulations mentioned in Section 13.

Further information:

Product is highly flammable and by part miscible with water.

7. Handling and storage

7.1 Handling:

Usual precautionary measures when handling chemicals are to be taken.
Wear appropriate gloves and eye protection. Open and handle container with care.
Air thoroughly and if necessary care for exhauster or breathing filter (Class A Braun).
Do not smoke, eat or drink at work. Take measures against static discharges.
Preventive skin protection is recommended.
Wash hands with soap and copious amounts of water at the end of work.

7.2 Storage conditions:

Store product in a cool, approved area and keep it in its original container, tightly closed.
Air thoroughly. Keep away from sources of ignition and from fire-activating materials.
Protect against strong heating and sunshine. Recommended storage temperature: +15°C-25°C

8. Occupational exposure limits and personal protection

Limits:

8.1 Ingredients, the values of which are to be watched at work:

CAS Nr.:	Ingredient:	Rule:	Value:	Unit:	Value:	Unit:
71-23-8	N-Propanol	MAK	n.d.a.	ml/m ³	n.d.a.	mg/m ³

8.2 Personal protective equipment:

Protective means must be selected according to work-specific conditions and to the concentration of hazardous ingredients. The resistance of the protective means to chemicals should be evaluated with the respective supplier.

Respiratory protection:

If no exhauster available, wear breathing filter Class A (Braun) Organic vapours

Protective gloves:

Wear impermeable protective gloves (Butyl rubber). Latex gloves are only resistant to a limited extent. Preventive skin protection.

Eye protection:

Wear safety glasses/goggles with sideshields.

Protective clothing:

Wear long-sleeved, antistatic, hardly inflammable working clothes.

Hygiene measures:

Keep away from food, drink and animal feedingstuffs. Wash hands when making a break and at the end of work. Do not eat, drink or smoke at work.

Never clean skin or clothes with solvents!

9. Physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	characteristic	
Boiling point:	79 °C- 110 °C	
Melting point	n.a.	
Flash point:	< 20 °C	
Autoignition point:	360 °C	Literature value for N-Propanol
Explosive limits:	lower: 2,1 % upper: 13,5 %	Literature value for N-Propanol
Vapour pressure:	19,3 mbar / 20 °C	Literature value for N-Propanol
Vapour density:	> 1 (air = 1)	
pH value:	5 - 7	
Density:	~ 0,801g/ml	
Bulk density:	not applicable due to liquid physical condition	
Viscosity:	0,5 - 1 mm ² /s	
Solubility in water:	Miscible by part, approx. 250 g/Litre	
Miscible in:	Miscible with most of organic solvents	
Solvent content:	100 %	

n.a. = Not applicable

n.d.a. = No data available

10. Stability and reactivity

Stability:	The product is stable.
Conditions to avoid:	Strong heat (> 45°C) and/or sunshine
Substances to avoid:	Strong acids and alkaline solutions, oxidizing and reducing substances
Hazardous reactions:	With acids, alkaline solutions, oxidizing and reducing substances.
Hazardous decomposition:	Carbon oxide, nitrogen oxide

11. Toxicological information

Acute toxicity:	N-Propanol	Unit
LD ₅₀ : Acute/oral/rat:	1870	mg/kg
LD ₅₀ : Acute/dermal/rabbit:	4000	mg/kg
LDL ₀ : Man/oral:	5700	mg/kg
LD ₅₀ : Inhalation/rat:	34	mg/Litre/4h

Repeated or prolonged contact with the skin may cause skin eruptions and dermatitis. Degreasing effect.
Critical amounts can be taken up due to absorption through the skin.
Inhalation causes headache, daze, drowsiness and perceptive trouble.
Eye contact can cause strong irritation and oedema of the cornea.
Can cause liver, kidney and central nervous system injuries.
If breathed in when swallowed or vomited out, may cause severe lung injuries.

12. Ecological information

Water pollution hazards Class 1 (Germany)

Toxicity	N-Propanol
Fish toxicity: (Leuciscus idus)	n.d.a.
Bacteria toxicity: (Ps. Putida)	n.d.a.
Aquatic organisms	n.d.a.
Daphnia toxicity: (Daphnia magna)	EC ₅₀ : 3642 mg/ Litre after 48h

Do not allow to enter sewers or waterways.
No environmental problems are to be expected if the product is handled under normal conditions of anticipated use.

13. Disposal information

Consult local authorities for approved method of disposal.

European waste code: 070604

Uncleaned packings:

Recommendation:

Waste disposal as per local regulations.

14. Transport regulations

14.1 Road transport: ADR/RID and GGVS/GGVE:

ADR/RID class:	3
Warning label:	3
Warning No.:	33
Packing group:	II
UN Number:	1263
Classification code:	F 1
Proper shipping name:	Paint UN 1263
Maximum weight:	333 Litres

14.2 Sea transport: IMDG/GGVSee:

IMDG/GGVSee class:	3.2
UN Number:	1263
MFAG:	310/313
Label:	3
Packing group:	II
EmS Number:	"F-E, <u>S-E</u> "
Marine pollutant:	No
Proper shipping name:	Paint UN 1263

14.3 Air transport: ICAO-TI and IATA-DGR:

ICAO/IATA class:	3	
UN/ID Number:	1263	
Label:	3	
Packing group:	II	
Proper shipping name:	Paint UN 1263	
Packing regulations air liner:	305/ Y 305	
Max. net/box:	305/ 5 Litres	Y305/1 Litre
Packing regulations freight plane:	307	
Max. net/box:	60 Litres	

15.1 Labelling according to EC guideline 1999/45/EEC and to TRGS200:

The product is classified and labelled according to EC guidelines.

Warning symbol:

F Highly flammable
Xi Irritating

R phrases: R 11 Highly flammable
R 41 Risk of serious damage to eyes
R 67 Vapours can cause drowsiness and daze

S phrases: S 9 Keep container in a well ventilated place
S 16 Keep away from sources of ignition - No smoking
S 24 Avoid contact with skin
S 26 In case of contact with eyes rinse immediately with plenty of water
and seek medical advice
S 39 Wear eye/face protection
Recommendation: S 33 Take precautionary measures against static discharges

Special labelling for particular preparations:

None

German regulations:

Water pollutant class: 1 "Slightly hazardous in the aquatic environment"
Regulation concerning flammable liquids: B
Storage class VCI: 3 A
Local regulations on chemical accidents: 26, 2, 7b

Other national regulations:

Swiss toxic class: 4

16. Other information

The data given here are based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data do not signify any warranty with regard to the properties of the product.

To be used only for industrial purposes of application!
