

Details of the supplier of the safety data sheet

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SECTION 2: Hazards identification**· 2.1 Classification of the substance or mixture****· Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 2 H225 Highly flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Repr. 2 H361d Suspected of damaging the unborn child.
STOT SE 3 H336 May cause drowsiness or dizziness.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· 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 GHS07 GHS08

· Signal word Danger**· Contains:**
toluene

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butanone

Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P271 Use only outdoors or in a well-ventilated area.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/attention.

Supplemental information:

Restricted to professional users.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Solvent mixture

Dangerous components:

CAS: 108-88-3 EINECS: 203-625-9 Reg.nr.: 01-2119471310-51-xxxx	toluene Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	75- <100%
CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43-xxxx	butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	20- <30%

Regulation (EC) No 648/2004 on detergents / Labelling for contents

aliphatic hydrocarbons	≥15- <30%
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Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Take affected persons out of danger area and lay down.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
Seek immediate medical advice.
- **4.2 Most important symptoms and effects, both acute and delayed**
Breathing difficulty
Headache
Dizziness
Nausea
Harmful: may cause lung damage if swallowed.
Chemical pneumonia.
May cause damage to organs through prolonged or repeated exposure.
Irritating to eyes and skin.
- **Information for doctor:** No further relevant information available.
- **Hazards** 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.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures.
Formation of toxic gases is possible during heating or in case of fire.
Carbon monoxide (CO)
Carbon dioxide
Hydrogen chloride (HCl)
Nitrogen oxides (NO_x)
- **5.3 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.

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Keep people at a distance and stay on the windward side.

Ensure adequate ventilation

Keep away from ignition sources.

Avoid contact with the eyes and skin.

6.2 Environmental precautions:

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

Keep contaminated washing water and dispose of appropriately.

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

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.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with the eyes and skin.

Avoid breathing vapours.

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

Ensure that washing facilities are available at the work place.

Information about fire - and explosion protection:

Highly flammable.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Use explosion-proof apparatus / fittings and spark-proof tools.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in unopened original receptacles.

Information about storage in one common storage facility:

Store away from oxidising agents.

Protect from heat and direct sunlight.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Storage temperature: +5 °C to +25 °C

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

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

108-88-3 toluene

WEL	Short-term value: 384 mg/m ³ , 100 ppm Long-term value: 191 mg/m ³ , 50 ppm Sk
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78-93-3 butanone

WEL	Short-term value: 899 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm Sk, BMGV
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Ingredients with biological limit values:

78-93-3 butanone

BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one
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Additional information:

The lists valid during the making were used as basis.
HSE EH40/2005 Workplace Exposure Limits (as amended)

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
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.
Do not breathe vapour.
Avoid contact with the eyes and skin.
Use skin protection cream for skin protection.
Pregnant women should strictly avoid inhalation or skin contact.

Respiratory protection:

Use only in well-ventilated areas.
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.
Filter A2/P3

Protection of hands:



Protective gloves

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

Material of gloves

Nitrile rubber, NBR

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EN 374

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

EN 166

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:

Liquid

Colour:

Colourless

· **Odour:**

Like aromatic solvents

· **Initial boiling point and boiling range:** 110 °C

· **Flash point:** -4 °C (Closed Cup)

· **Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower:

1.3 Vol %

Upper:

11.5 Vol %

· **Density at 20 °C:** 0.85 g/cm³

· **Solubility in / Miscibility with water:** Slightly soluble.

· **Viscosity:**

Dynamic at 20 °C:

<50 cP

· **Solvent content:**

VOC (EU)

100 %

VOC (EC)

850 g/l

· **9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** Stable

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Reacts with strong oxidising agents.
Reacts with reducing agents.
- **10.4 Conditions to avoid**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

108-88-3 toluene

Oral	LD50	6000 mg/kg (rat)
Dermal	LD50	6000 mg/kg (rabbit)
Inhalative	LC50/4 h	21 mg/L (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Irritant to skin and mucous membranes.
Strong degreasing effect.
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Harmful: may cause lung damage if swallowed.
Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
CAS 108-88-3; Repr. 2 (CLP)
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**
Suspected of damaging the unborn child.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard**
May be fatal if swallowed and enters airways.

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

108-88-3 toluene

LC50/96 h	24 mg/L (rainbow trout)
	13 mg/L (carassius auratus)
EC50/48 h	11.5 mg/L (daphnia magna)

12.2 Persistence and degradability The product is not easily, but potentially biodegradable.

12.3 Bioaccumulative potential Does not accumulate in organisms

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

108-88-3 toluene

IC50/72 h	12 mg/L (selenstrum capricornutum)
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Additional ecological information:

General notes:

Do not allow undiluted product or large quantities of it 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

Disposal must be made according to official regulations.

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

Waste disposal key: UK (WM3) : HP3 HP4 HP5 HP10

European waste catalogue

14 06 03*	other solvents and solvent mixtures
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Uncleaned packaging:

Recommendation:

Dispose of packaging according to regulations on the disposal of packagings.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Non contaminated packagings may be recycled.

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. (TOLUENE)

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· IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (TOLUENE)
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	3 (F1) Flammable liquids.
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	33
· EMS Number:	F-E, <u>S-E</u>
· Stowage Category	B
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (TOLUENE), 3, II

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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - "CLP" Regulation (EC) No 1272/2008 (OJ L 353, 31.12.2008, p.1).
 - "REACH" Regulation (EC) No 1907/2006 (OJ L 396, 30.12.2006, p.1, with subsequent amendments).
 - COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.
 - HSE EH40/2005 Workplace Exposure Limits (as amended)
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 48
- **National regulations:**
- **Information about limitation of use:**
 - Employment restrictions concerning juveniles must be observed.
 - Employment restrictions concerning pregnant and lactating women must be observed.
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57** Not applicable.
- **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.
 - H304 May be fatal if swallowed and enters airways.
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.
 - H336 May cause drowsiness or dizziness.
 - H361d Suspected of damaging the unborn child.
 - H373 May cause damage to organs through prolonged or repeated exposure.
- **Abbreviations and acronyms:**
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 - IMDG: International Maritime Code for Dangerous Goods
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - VOC: Volatile Organic Compounds (USA, EU)
 - LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - PBT: Persistent, Bioaccumulative and Toxic
 - SVHC: Substances of Very High Concern
 - vPvB: very Persistent and very Bioaccumulative
 - Flam. Liq. 2: Flammable liquids – Category 2
 - Skin Irrit. 2: Skin corrosion/irritation – Category 2
 - Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 - Repr. 2: Reproductive toxicity – Category 2
 - STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 - Asp. Tox. 1: Aspiration hazard – Category 1
- *** Data compared to the previous version altered.**

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