

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.05.2015

Version number 1

Revision: 27.05.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** **SOLVENTE 783**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** No further relevant information available.
Thinner, Diluent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** KEMPER SYSTEM GmbH & Co. KG
Holländische Strasse 32-36
34246 Vellmar
Deutschland / Germany
Telefon: +49 (0)561 / 8295-0
Telefax: +49 (0)561 / 8295-5110
E-Mail: MSDS@KEMPER-SYSTEM.COM
- **Further information obtainable from:** Research and Development
- **1.4 Emergency telephone number:** Gif tinformat ionszentrum der Länder Rheinland-Pfalz und Hessen
Langenbeckstraße 1; Gebäude 601; 55131 Mainz
Tel. Nr.: +49 (0)6131 / 19 24 0
Universitätsmedizin der Johannes Gutenberg-Universität Mainz


SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard


- Repr. 2 H361d Suspected of damaging the unborn child.
- 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.



GHS07


- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- STOT SE 3 H336 May cause drowsiness or dizziness.

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




Xn; Harmful

R48/20-63-65: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child.
Harmful: may cause lung damage if swallowed.



Xi; Irritant

R36/38: Irritating to eyes and skin.



F; Highly flammable

- R11: Highly flammable.
- 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.
- **Classification system:** The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**

- **Hazard pictograms** The product is classified and labelled according to the CLP regulation.



GHS02 GHS07 GHS08

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<ul style="list-style-type: none"> - Signal word - Hazard-determining components of labelling: - Hazard statements - Precautionary statements - 2.3 Other hazards - Results of PBT and vPvB assessment - PBT: - vPvB: 	<p>Danger</p> <p>toluene butanone</p> <p>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.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</p> <p>Not applicable. Not applicable.</p>
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SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

CAS: / EINECS:	Name / Hazard Phrases / Precautionary Phrases	Concentration
CAS: 78-93-3 EINECS: 201-159-0	butanone Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	50-100%
CAS: 108-88-3 EINECS: 203-625-9	toluene Xn R48/20-63-65; Xi R38; F R11 R67 Repr. Cat. 3 Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	25-50%
CAS: 79-20-9 EINECS: 201-185-2	methyl acetate Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%
CAS: 67-56-1 EINECS: 200-659-6	methanol T R23/24/25-39/23/24/25; F R11 Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370	0.5-2.5%

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

SECTION 4: First aid measures

- 4.1 Description of first aid measures

<ul style="list-style-type: none"> - General information: - After inhalation: - After skin contact: - After eye contact: - After swallowing: - 4.2 Most important symptoms and effects, both acute and delayed - 4.3 Indication of any immediate medical attention and special treatment needed 	<p>Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.</p> <p>Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation. Immediately wash with water and soap and rinse thoroughly. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. If symptoms persist consult doctor.</p> <p>No further relevant information available. No further relevant information available.</p>
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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
Alcohol resistant foam
ABC powder
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Keep away from ignition sources.
- **6.2 Environmental precautions:** Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
Prevent from spreading (e.g. by damming-in or oil barriers).
- **6.3 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.
Do not flush with water or aqueous cleansing agents
- **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** Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
Provide solvent resistant, sealed floor.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Protect from frost.
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

- Ingredients with limit values that require monitoring at the workplace:

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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108-88-3 toluene	
WEL	Short-term value: 384 mg/m ³ , 100 ppm Long-term value: 191 mg/m ³ , 50 ppm Sk
79-20-9 methyl acetate	
WEL	Short-term value: 770 mg/m ³ , 250 ppm Long-term value: 616 mg/m ³ , 200 ppm
67-56-1 methanol	
WEL	Short-term value: 333 mg/m ³ , 250 ppm Long-term value: 266 mg/m ³ , 200 ppm Sk

- Ingredients with biological limit values:

78-93-3 butanone	
BMGV	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

- Respiratory protection:

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.
Use suitable respiratory protective device in case of insufficient ventilation.

- Protection of hands:



Protective gloves

Only use chemical-protective gloves with CE-labelling of category III.
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

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.

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.

Recommended thickness of the material: ≥ 0.7 mm

Synthetic rubber gloves

- 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.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Value for the permeation: Level ≤ 3

- Eye protection:



Tightly sealed goggles

- Body protection:

Protective work clothing
Impervious protective clothing

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form: Fluid
Colour: Colourless
- Odour: Characteristic

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- Odour threshold:	Not determined.
- pH-value:	Not determined.
- Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
- Flash point:	-4 °C
- Flammability (solid, gaseous):	Not applicable.
- Ignition temperature:	
Decomposition temperature:	Not determined.
- Self-igniting:	Product is not selfigniting.
- Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
- Density at 20 °C:	0.83 g/cm ³
- Relative density	Not determined.
- Vapour density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with water:	Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C:	1.6 mm ² /s
- Solvent content:	
VOC (EC)	100.00 %
- 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions: No dangerous reactions known.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity

- LD/LC50 values relevant for classification:

78-93-3 butanone

Oral	LD50	3300 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rabbit)
Inhalative	LC50/4 h	40 mg/l (mouse)
		34.5 mg/l (rat)

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	28.1 mg/l (rat)

79-20-9 methyl acetate

Oral	LD50	3705 mg/kg (rabbit)
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67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
Dermal	LD50	15800 mg/kg (rabbit)

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Inhalative LC50/4 h | 3 mg/l (ATE)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising 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
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)** Repr. 2

SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

78-93-3 butanone

EC50/48 h | 1382 mg/l (daphnia)

LC50/96 h | >3000 mg/l (fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **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** 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.

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. (ETHYL METHYL KETONE (METHYL ETHYL KETONE), TOLUENE)
FLAMMABLE LIQUID, N.O.S. (ETHYL METHYL KETONE (METHYL ETHYL KETONE), TOLUENE)

- **14.3 Transport hazard class(es)**

- **ADR**



- **Class** 3 (F1) Flammable liquids.

- **Label** 3

- **IMDG, IATA**



- **Class** 3 Flammable liquids.

- **Label** 3

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<ul style="list-style-type: none"> - 14.4 Packing group - ADR, IMDG, IATA 	<p style="text-align: center;">II</p>
<ul style="list-style-type: none"> - 14.5 Environmental hazards: - Marine pollutant: 	<p style="text-align: center;">No</p>
<ul style="list-style-type: none"> - 14.6 Special precautions for user - Danger code (Kemler): - EMS Number: 	<p>Warning: Flammable liquids. 33 F-E,S-E</p>
<ul style="list-style-type: none"> - 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p style="text-align: center;">Not applicable.</p>
<ul style="list-style-type: none"> - Transport/Additional information: 	
<ul style="list-style-type: none"> - ADR - Limited quantities (LQ) - Excepted quantities (EQ) 	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> - Transport category - Tunnel restriction code 	<p>2 D/E</p>
<ul style="list-style-type: none"> - IMDG - Limited quantities (LQ) - Excepted quantities (EQ) 	<p>1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>
<ul style="list-style-type: none"> - UN "Model Regulation": 	<p>UN1993, FLAMMABLE LIQUID, N.O.S. (ETHYL METHYL KETONE (METHYL ETHYL KETONE), TOLUENE), 3, II</p>

SECTION 15: Regulatory information

<ul style="list-style-type: none"> - 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture - 15.2 Chemical safety assessment: 	<p>No further relevant information available. A Chemical Safety Assessment has not been carried out.</p>
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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.

<ul style="list-style-type: none"> - Relevant phrases 	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 15%;">H225</td><td>Highly flammable liquid and vapour.</td></tr> <tr><td>H301</td><td>Toxic if swallowed.</td></tr> <tr><td>H304</td><td>May be fatal if swallowed and enters airways.</td></tr> <tr><td>H311</td><td>Toxic in contact with skin.</td></tr> <tr><td>H315</td><td>Causes skin irritation.</td></tr> <tr><td>H319</td><td>Causes serious eye irritation.</td></tr> <tr><td>H331</td><td>Toxic if inhaled.</td></tr> <tr><td>H336</td><td>May cause drowsiness or dizziness.</td></tr> <tr><td>H361d</td><td>Suspected of damaging the unborn child.</td></tr> <tr><td>H370</td><td>Causes damage to organs.</td></tr> <tr><td>H373</td><td>May cause damage to organs through prolonged or repeated exposure.</td></tr> <tr><td>R11</td><td>Highly flammable.</td></tr> <tr><td>R23/24/25</td><td>Toxic by inhalation, in contact with skin and if swallowed.</td></tr> <tr><td>R36</td><td>Irritating to eyes.</td></tr> <tr><td>R38</td><td>Irritating to skin.</td></tr> <tr><td>R39/23/24/25</td><td>Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.</td></tr> <tr><td>R48/20</td><td>Harmful: danger of serious damage to health by prolonged exposure through inhalation.</td></tr> <tr><td>R63</td><td>Possible risk of harm to the unborn child.</td></tr> <tr><td>R65</td><td>Harmful: may cause lung damage if swallowed.</td></tr> <tr><td>R66</td><td>Repeated exposure may cause skin dryness or cracking.</td></tr> <tr><td>R67</td><td>Vapours may cause drowsiness and dizziness.</td></tr> </table>	H225	Highly flammable liquid and vapour.	H301	Toxic if swallowed.	H304	May be fatal if swallowed and enters airways.	H311	Toxic in contact with skin.	H315	Causes skin irritation.	H319	Causes serious eye irritation.	H331	Toxic if inhaled.	H336	May cause drowsiness or dizziness.	H361d	Suspected of damaging the unborn child.	H370	Causes damage to organs.	H373	May cause damage to organs through prolonged or repeated exposure.	R11	Highly flammable.	R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.	R36	Irritating to eyes.	R38	Irritating to skin.	R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.	R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.	R63	Possible risk of harm to the unborn child.	R65	Harmful: may cause lung damage if swallowed.	R66	Repeated exposure may cause skin dryness or cracking.	R67	Vapours may cause drowsiness and dizziness.
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<ul style="list-style-type: none"> - Department issuing MSDS: - Contact: - Abbreviations and acronyms: 	<p>research & development research & development 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)</p>																																										

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VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Repr. 2: Reproductive toxicity, Hazard Category 2
STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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