Version 3.0: March 2015 Print date: 12.06.2015 1/6

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

Commercial Name: SOLVENT STRIPPER
Relevant identified uses of the mixture and uses advised against:

solvent for stones treatment

Company identification: STONE CARE EUROPE srl - Via L. Spallanzani, 8 - 24061 Albano Sant'Alessandro (BG) - ITALIA

Tel. 035.581.270 - Fax 035.42.39.780 - Email: info@stone-care-europe.com

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Emergency number: Centro Antiveleni Ospedale Niguarda Tel. 02.66.10.10.29

2. Hazards Identification

2.1 Classification of the substance or mixture.

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

Highly flammable. Possible risk of harm to the unborn child. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

· Risk of serious damage to eyes. · Harmful: may cause lung damage if swallowed. · Irritating to skin.

F; R 11 · Repr. Cat.3; R 63 · Xn; R 48/20 · Xi; R 41 · Xn; R 65 · Xi; R 38

Classification according to Regulation (EC) No 1272/2008

Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness.

Asp. Tox. 1; H304 · Eye Dam. 1; H318 · Skin Irrit. 2; H315 · Flam. Liq. 2; H225 · Repr. 2; H361d · STOT SE 3; H336 · STOT RE 2; H373

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms









(GHS02) (GHS08) (GHS05) (GHS07)

Signal word Danger

Hazard-determining components of labelling: TOLUENE; Nr. CAS: 108-88-3.

Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

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.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P264 Wash thoroughly after handling.

P301+310: 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.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P403+P235 Store in a well-ventilated place. Keep cool.

P501: Dispose of contents/container in accordance with local/regional/national/international regulation

2.3 Other hazards -

Results of PBT and vPvB assessment

PBT: not applicable. vPvB: not applicable.

3. Composition, Information on Ingredients

3.2 Chemical characterization: mixtures.

Description: mixture made by the following substances:

Dangerous components

Identification Number Dangerous comp.	%	Dir. 67/548/EEC or 1999/45/EC	Regulation (EC) No 1272/2008
Toluene - CAS 108-88-3	45-50	Xn R48/20, Xn R63, Xn R65,	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Repr. 2; H361 F0D2
- Nr. Reg. 01-2119471310-51-XXXX		F R11, Xi R38, R67	STOT RE 2; H373 Skin Irrit. 2; H315 STOT SE 3; H336
Acetone - CAS 67-64-1	25-30	Xi R36, R66, R67, F R11	EUH066, Flam. Liq. 2 H225, Eye Irrit. 2 H319,
- Nr. Reg. 01-2119471330-49-XXXX			STOT SE 3 H336
n-Butyl acetate- CAS 123-86-4	15-20	R66, R67, R10	EUH066, Flam. Liq. 3 H226, STOT SE 3 H336
- Nr. Reg. 01-2119485493-29-XXXX			
Isobutyl alcohol- CAS 78-83-1	15-20	Xi R37/38, Xi R41, R67, R10	Flam. Liq. 3 H226, Skin Irrit. 2 H315, Eye Dam. 1 Nr. Reg.
- 01-2119484609-23-XXXX			H318, STOT SE 3 H335, STOT SE 3 H336
2-Butoxyethanol- CAS 111-76-2	5-10	Xn; R20/21/22 Xi; R36/38	Acute Tox. 4; H302/312/332 Skin Irrit. 2; H315
- Nr. Reg. 01-2119475108-36			Eye Irrit. 2; H319

4. First Aid Measures

4.1 Description of first aid measures

General information: symptoms may be delayed. Immediately remove any clothing soiled by the product.

After inhalation: supply fresh air. If breathing is difficult, give oxygen. Seek medical treatment.

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

After skin contact: immediately wash with water and soap and rinse thoroughly. Seek medical treatment in case of complaints.

After eye contact: rinse immediately for 15 minutes with plenty of water with the eyelid held wide open. Seek medical advice.

After swallowing: rinse out mouth and drink a glass of water. Do not induce vomiting. In case of spontaneous vomiting: Risk of aspiration. Pulmonary failure possible. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects: coughing, breathing difficulty, headache, dizziness, impairment of vision, nausea, vomiting, diarrhea, unconsciousness.

Hazards: risk of aspiration, danger of impaired breathing, danger of disturbed cardiac rhythm.

4.3 Indication of any immediate medical attention and special treatment needed: no further relevant information available.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing agents: CO2, powder, foam or water spray.

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. In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following can be released: carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Protective equipment: wear self-contained respiratory protective device. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Additional information: cool endangered receptacles with water spray. Vapours heavier than air. Beware of reignition.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: do not inhale vapours. Avoid contact with the eyes and skin. Keep away from ignition sources.

6.2 Environmental precautions: do not allow product to reach sewage system or any water course. Avoid penetration into drainage system because of danger of explosion.

6.3 Methods and material for containment and cleaning up: absorb with liquid-binding material. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

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.

7. Handling and Storage

7.1 Precautions for safe handling: use only in well ventilated areas. Prevent formation of aerosols. Keep containers, equipment and working place clean.

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 only in the original receptacle. Provide solvent resistant, sealed floor.

Information about storage in one common storage facility: store away from foodstuffs. Store away from oxidant agents.

Further information about storage conditions: keep container tightly sealed. Store receptacle in a well ventilated area. Protect from heat and direct sunlight.

Recommended storage temperature: 15 - 25 °C.

7.3 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.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

108-88-3 Toluene (>80%)

WEL (Great Britain) Short-term value: 384 mg/m³, 100 ppm

Long-term value: 191 mg/m³, 50 ppm

Sk

· DNELs

Oral LD50 5000 mg/kg (rat)
Dermal LD50 12124 mg/kg (rabbit)

Inhalative DNEL (workers-local effects Acute) 63 mg/m3 (fishes)

LC50/4 h 6114* mg/L (mouse)

78-83-1 Isobutyl alcohol (>80%)

WEL (Great Britain) Short-term value: 231 mg/m 3 , 75 ppm

Long-term value: 154 mg/m³, 50 ppm

DNELs

Oral LD50 2460 mg/kg (rat)
Dermal LD50 4200 mg/kg (rbt)

Inhalative DNEL (workers-local effects Acute) 1370/96h mg/m3 (fishes)

LC50/4 h 24 mg/L (rat)

123-86-4 n-Butyl acetate (>80%)

WEL (Great Britain) Short-term value: 966 mg/m³, 200 ppm

Long-term value: 724 mg/m³, 150 ppm

· DNELs

Oral LD50 14000 mg/kg (rat) Inhalative LC50/4 h >21.0 mg/L (rat)

67-64-1 Acetone (>80%)

WEL (Great Britain) Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm

IOELV (European Union) Long-term value: 1210 mg/m³, 500 ppm

· DNELs

Oral LD50 5800 mg/kg (rat)
Dermal LD50 20000 mg/kg (rbt)

Inhalative LC50/4 h 150 mg/L (rat)

70000 ppm

111-76-2 2-Butoxyethanol (>80%)

WEL (Great Britain) Short-term value: 246 mg/m³, 50 ppm

Long-term value: 123 mg/m³, 25 ppm

Sk, BMGV

IOELV (European Union) Short-term value: 246 mg/m³, 50 ppm

Long-term value: 98 mg/m³, 20 ppm

Skin DNELs

Oral LD50 530 mg/kg (rat)
Dermal LD50 400 mg/kg (rabbit)

Inhalative DNEL (workers-local effects Acute) 1575 (48h) mg/m3 (fishes)

LC50/4 h 2.2 mg/L (rat)

Ingredients with biological limit values:

111-76-2 2-Butoxyethanol (>80%)

BMGV (Great Britain) 240 mmol/mol creatinine

Medium: urine

Sampling time: post shift Parameter: butoxyacetic acid

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. Pregnant women should strictly avoid inhalation or skin contact.

Respiratory protection: not required.

Protection of hands: the selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Protective gloves: rubber gloves.

Material of gloves: the glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. 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. Neoprene 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.

Eye protection: tightly sealed goggles.

Body protection: solvent resistant protective clothing.

9. Physical and Chemical Properties

- \cdot 9.1 Information on basic physical and chemical properties
- · Molecular weight
- · Appearance:

Form: fluid Color: colorless

- Odor: pungent.Odor threshold: no information available.
- · pH-value at 20 °C: not applicable.
- $\cdot \ \text{Change in condition} \\$

Melting point/Melting range: no information available. Boiling point/Boiling range: no information available.

- \cdot Flash point: -18°C.
- · Flammability (solid, gaseous): not applicable.
- $\cdot \mbox{ Ignition temperature: } \mbox{no information available.}$
- $\cdot \ \textbf{Decomposition temperature:} \ \text{not determined}.$
- \cdot Self-igniting: product is not self-igniting.
- \cdot Danger of explosion: product does not present an explosion hazard.
- Explosion limits:
 Lower: not determined.
 Upper: not determined.
- · Vapour pressure at 20 °C: not determined.
- · **Density at 20 °C:** 0,848 g/cm³
- Relative density: not determined.
- · Vapour density at 20 °C: not determined.
- · Evaporation rate: not determined.
- \cdot Solubility in / Miscibility with water at 20 $^{\circ}\text{C:}$ not determined.
- · organic solvents: not determined.
- · Partition coefficient (n-octanol/water): not determined.
- · Viscosity at 15 °C: not determined.
- · Dynamic at 20 °C: not determined.
- · Kinematic: not determined.
- 9.2 Other information: no further relevant information available.

10. Stability and Reactivity

10.1 Reactivity: fumes can combine with air to form an explosive mixture.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: no decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Strong reaction possible with: strong oxidants, strong acids, strong bases.

10.4 Conditions to avoid: heat, flames and sparks. **10.5 Incompatible materials:** various plastics, gum.

10.6 Hazardous decomposition products: in case of fire: see item 5.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity -

LD/LC50 values relevant for classification:

67-64-1 acetone

Oral LD $_{50}$ 5800 mg/kg (rat) (RTECS) Dermal LD $_{50}$ 20000 mg/kg (rabbit) (IUCLID) Inhalative LC $_{50}$ /4 h $_{76}$ mg/l (rat) (Lit.)

n-butyl acetate

Oral LD $_{50}$ 10760 mg/kg (rat) (OECD 423) Dermal LD $_{50}$ >14112 mg/kg (rabbit) (OECD 402) Inhalative LC $_{50}$ /4 h 23.4 mg/l (rat) (OECD 403)

78-93-3 butanone Oral LD 50 274

Oral LD $_{50}$ 2740 mg/kg (rat) (TOXNET) Dermal LD $_{50}$ 6480 mg/kg (rabbit) (TOXNET) 108-88-3 toluene

Oral LD $_{50}$ * 636-5580 mg/kg (rat) (IUCLID) Dermal LD $_{50}$ > 12000 mg/kg (rabbit) (IUCLID) Inhalative LC $_{50}$ /4 h 28.1 mg/l (rat) (IUCLID)

Primary irritant effect -

On the skin: irritant to skin and mucous membranes. At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent. Danger through skin adsorption.

On the eye: strong irritant with the danger of severe eye injury.

After inhalation: irritations in the respiratory tract, coughing, dyspnea. Absorption

Sensitisation: no sensitising effects known.

CMR effects: Repr. 2

Germ cell mutagenicity: no information available. **Carcinogenicity:** no information available.

Reproductive toxicity: suspected of damaging the unborn child.

Aspiration hazard: may be fatal if swallowed and enters airways.

Specific target organ toxicity - single exposure: may cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure: may cause damage to organs through prolonged or repeated exposure.

Additional toxicological information:

After swallowing: irritations in the mouth, throat, esophagus, gastrointestinal tract. Vomiting. Damage of lungs. Absorption

After absorption: headache, dizziness, impairment of vision, nausea, cardiovascular failure, respiratory paralysis, unconsciousness, damage of liver and kidneys.

Further information: further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

12. Ecological Information

12.1 Toxicity

Aquatic toxicity: quantitative data on the ecological effect of this product are not available.

78-83-1 isobutanol

LC50 (96h) > 1.430 mg/l Pimephales promelas

EC50 (48h) > 1.100 mg/l Daphnia pulex

IC50 (72h) > 1.800 mg/l Pseudokirchneriella subcapitata

108-88-3 toluene

EC50 (48h) 116 mg/l Gammarus pseudolimneus IC50 (72h) 125 mg/l Pseudokirchneriella subcapitata

67-64-1 acetone

LC50 (96h) > 100 mg/l salmo gairdneri

EC50 (48h) > 100 mg/l Dafnia Magna

IC50 (72h) > 100 mg/l Pseudokirchneriella subcapitata

123-86-4 n-butyl acetate

LC50 (96h) 18 mg/l Pimephales promelas

EC50 (48h) 44 mg/l Dafnia magna

IC50 (72h) 648 mg/I Desmodesmus subspicatus

12.2 Persistence and degradability: no further relevant information available.

12.3 Bioaccumulative potential: no further relevant information available.

12.4 Mobility in soil: the product floats on water and does not dissolve.

Ecotoxical effects

Remark: do not allow to enter waters, waste water, or soil!

12.5 Results of PBT and vPvB assessment

PBT: not applicable.

vPvB: not applicable.

12.6 Other adverse effects: no further relevant information available.

13. Disposal Considerations

Waste treatment methods

Recommendation: this material and its container must be disposed of as hazardous waste. Can be reused after reprocessing. The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Uncleaned packaging-

Recommendation: disposal according to official regulations for elimination of waste. 2001/573/EC: Council Decision of 23 July 2001 amending the list of wastes contained in Decision 2000/532/EC. Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

- · Uncleaned packaging: the containers and packing materials contaminated with dangerous substances or preparations, have the same treatment products. Directive 94/62/EC of the European Parliament and the Council of 20 December 1994 on packaging and packaging waste.
- · Recommendation: disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14.Transport Information

	ADR/RID	IMDG	IATA
14.1 UN-Number	1993	1993	1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (vapour Pressure at 50 °C not more than 110	FLAMMABLE LIQUID, N.O.S. (ACETO	NE, TOLUENE)
	kPa) (ACETONE, TOLUENE)		
14.3 Transport hazard class(es)	3 (F1)	3	3
14.4 Packing group (2.1)	II	II	II
Additional information			
14.5 Environmental hazards	NO	NO	NO
14.6 Special precautions for user	Warning: flammable liquids.	Warning: flammable liquids.	Warning: flammable liquids.
	Hazard identification number: 33	EmS: F-E, <u>S-E</u>	Passenger and Cargo Aircraft
	Limited quantity (3.4): (1 L)	Stowage and Segregation: Categ. B	Limited Quantities
	Special provisions (3.3): 640D	Special provisions: N.A.	Max net (Qty/Pkg): -
	Transport category (1.1.3): 2	Marine pollutant: No	Packaging instructions: -
	Tunnel restriction code (8.6): (D/E)		Passenger and Cargo Aircraft
			Max net (Qty/Pkg): 5 L
			Packaging instructions: 353
			Cargo Aircraft Only
			Max net (Qty/Pkg): 60 L
			Packaging instructions: 364

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: not available.

14.8 UN "Model Regulation":

ADR UN1993, FLAMMABLE LIQUID, N.O.S. (ACETONE, TOLUENE)

15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations: information about limitation of use: employment restrictions concerning juveniles must be observed. Employment restrictions concerning pregnant and lactating women must be observed.

Breakdown regulations

Waterhazard class

Water hazard class 2 (Self-assessment): hazardous for water.

Other regulations, limitations and prohibitive regulations

Explosion group: IIA Temperature class: T1

15.2 Chemical safety assessment: a Chemical Safety Assessment has not been carried out.

16.Additional Information

Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H301 Toxic if swallowed.

H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.
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.

R10 Flammable.

R11 Highly flammable.

R20/21 Harmful by inhalation and in contact with skin.

R22 Harmful if swallowed.

Toxic by inhalation, in contact with skin and if swallowed. R23/24/25

R36 Irritating to eyes.

R37/38 Irritating to respiratory system and skin.

R38 Irritating to skin.

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. R41 Risk of serious damage to eyes.

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. Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the

International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

ELINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent
LD50*: Lethal dose, 50 percent (Not relevant for classification)
LD50*: Lethal Concentration, 50 percent (Not relevant for classification)
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3

Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Repr. 2: Reproductive toxicity, Hazard Category 2
REPR. 1: Specific tarret expenses toxicity, Single exposure Hazard

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

Disclaimer: the statements contained herein are based upon technical data that Stone Care Europe Srl believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. Handle and apply only as recommended, for full information see product information sheet.