Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 29.03.2018 *Version number 1* *Revision: 29.03.2018*

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

· ***1.1 Product identifier***

· ***Trade name:*** **PE-Reiniger**

· ***1.2 Relevant identified uses of the substance or mixture and uses advised against***
No further relevant information available.
· ***Application of the substance / the mixture***
Solvent
Industrial Uses

· ***1.3 Details of the supplier of the safety data sheet***
· ***Manufacturer/Supplier:***
S.A.T. Kunststofftechnik GmbH
Brockhäger Straße 51
33330 Gütersloh
Deutschland
Telefon: ++49 (0) 5241 99 555 10
Telefax: ++49 (0) 5241 99 555 01
E-Mail: info@sat-k.de
Webseite: www.sat-k.de

· ***Informing department:*** Phone: +49 (0) 5241 99 555 10

· ***1.4 Emergency telephone number:***
Phone +49 (0) 5241 99 555 10
(Office hours 9:00 - 17:00)

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.


GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

· ***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

· ***Signal word*** Danger
· ***Hazard statements***
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
· ***Precautionary statements***
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P233	Keep container tightly closed.
P280	Wear protective gloves / eye protection / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

· ***Additional information:***
Packaging of whatever capacity that is delivered to the general public shall be fitted with a tactile warning of danger according to EN ISO 11683.
· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.

SECTION 3: Composition/information on ingredients

· ***3.2 Chemical characterisation: Mixtures***
· ***Description:*** Denatured ethanol, not intended for human consumption.

· ***Dangerous components:***

CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 01-2119457610-43-X	ethanol Flam. Liq. 2, H225; Eye Irrit. 2, H319	50 - 100%
CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43-X	butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≥ 0.1 - ≤ 1%

· ***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*** Instantly remove any clothing contaminated by the product.
· ***After inhalation***
Take affected persons into the open air and position comfortably
In case of persistent symptoms consult doctor.
· ***After skin contact***
Rinse with water.
In case of permanent aches and pains please go and see the doctor.
· ***After eye contact***
Rinse opened eye for several minutes under running water.
Call a doctor immediately.
· ***After swallowing***
Rinse out mouth and then drink plenty of water.
Do not induce vomitting.
In case of persistent symptoms consult doctor.
· ***4.2 Most important symptoms and effects, both acute and delayed***
eye irritation
dermatitis
irritation of respiratory system.
disziness
sickness
vomiting
Anaesthetic effects

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Unconsciousness
· ***Danger***
Danger of liver damage.
Danger of impaired breathing.
· ***4.3 Indication of any immediate medical attention and special treatment needed***
A symptomatic therapy is to be induced.
In cases of irritation to the lungs, initial treatment with Dexamethason metered aerosol.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents***
Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.
· ***For safety reasons unsuitable extinguishing agents*** Water with a full water jet.
· ***5.2 Special hazards arising from the substance or mixture***
Inhalation of combustion gases may cause serious health hazards.
During incomplete combustion carbon monoxide can be formed.
Formation of flammable mixtures of vapours with air possible.
Vapours are heavier than air and may travel long distances along ground, ignite and flash back to source.
· ***5.3 Advice for firefighters***
· ***Protective equipment:*** Wear self-contained breathing apparatus.
· ***Additional information***
Use water to keep fire exposed containers cool.
Remove goods in stock from incendiary zone, if possible.

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Wear protective equipment. Keep unprotected persons away.
Keep away from sources of ignition and care for sufficient ventilation due to the content of organic solvents.
Avoid contact with the product.
· ***6.2 Environmental precautions:***
Small amounts usually used during handling can be flushed away with water.
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
· ***6.3 Methods and material for containment and cleaning up:***
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Dispose of the material collected according to regulations.
· ***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 information on disposal.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Avoid contact with eyes and skin.
Ensure sufficient ventilation.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
· ***Information about protection against explosions and fires:***
Keep ignition sources away - Do not smoke.

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Vapours are heavier than air and may travel long distances along ground, ignite and flash back to source.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage***
· ***Requirements to be met by storerooms and containers:*** Store in cool location.
· ***Information about storage in one common storage facility:***
Keep away from food, drink and animal feeding stuffs.
· ***Further information about storage conditions:***
Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
· ***7.3 Specific end use(s)*** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· ***8.1 Control parameters***
· ***Components with limit values that require monitoring at the workplace:***
WEL: workplace exposure limit
IOELV: Indicative Occupational Exposure Limit Values, workplace threshold value of the European Union

64-17-5 ethanol	
WEL (Great Britain)	Long-term value: 1920 mg/m³, 1000 ppm
78-93-3 butanone	
WEL (Great Britain)	Short-term value: 899 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm Sk, BMGV
IOELV (European Union)	Short-term value: 900 mg/m³, 300 ppm Long-term value: 600 mg/m³, 200 ppm

· ***DNELs***

64-17-5 ethanol		
Oral	DNEL (consumer, long-term, systemic)	87 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	343 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	206 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	950 mg/m³ (human)
	DNEL (consumer, long-term, systemic)	114 mg/m³ (human)
	DNEL (worker, short-term, local)	1,900 mg/m³ (human)
	DNEL (consumer, short-term, local)	950 mg/m³ (human)

· ***PNECs***

64-17-5 ethanol	
PNEC aqua (freshwater)	0.96 mg/L (.)
PNEC aqua (marine water)	0.79 mg/L (.)
PNEC STP	580 mg/L (.)
PNEC soil	0.63 mg/kg soil dw (.)
PNEC sediment (freshwater)	3.6 mg/kg sedim. dw (.)
PNEC sediment (marine water)	2.9 mg/kg sedim. dw (.)
PNEC aqua (intermittent releases)	2.75 mg/L (.)
PNEC oral	0.72 mg/kg food (.)

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· ***Ingredients with biological limit values:***	
78-93-3 butanone	
BMGV (Great Britain)	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one

· ***Additional information:*** The lists that were valid during the compilation were used as basis.

· ***8.2 Exposure controls***
· ***Personal protective equipment***
· ***General protective and hygienic measures***
Do not inhale gases / fumes / aerosols.
Do not eat, drink or smoke while working.
Wash hands during breaks and at the end of the work.
· ***Breathing equipment:***
Not necessary if room is well-ventilated.
Breathing apparatus approved for this purpose should be worn when solvent concentration exceeds the maximum workplace concentration values.
Filter A2.
· ***Protection of hands:***

Protective gloves.

· ***Material of gloves***
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Butyl rubber, BR
Fluorocarbon rubber (Viton)
· ***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.
In case of a layer thickness of 0.7 mm the penetration time is longer than 480 minutes.
· ***For the permanent contact gloves made of the following materials are suitable:***
Butyl rubber, BR
Fluorocarbon rubber (Viton)
· ***As protection from splashes gloves made of the following materials are suitable:***
Nitrile rubber, NBR
· ***Eye protection:***

Tightly sealed safety glasses.

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***
· ***General Information***
· ***Appearance:***

Form:	Fluid
Colour:	Colourless
· ***Odour:***	alcohol-like
· ***Odour threshold:***	Not determined.
· ***pH-value at 20 °C:***	7

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· **Change in condition**	
Melting point/freezing point:	-114.5 °C
Initial boiling point and boiling range:	78 °C
· **Flash point:**	12 °C
· **Inflammability (solid, gaseous)**	Not applicable.
· **Ignition temperature:**	> 363 °C
· **Decomposition temperature:**	Not determined.
· **Self-inflammability:**	Product is not selfigniting.
· **Explosive properties:**	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
· **Critical values for explosion:**	
Lower:	2.5 Vol %
Upper:	13.5 Vol %
· **Vapour pressure at 20 °C:**	59 hPa
· **Density at 20 °C**	0.807 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible
· **Partition coefficient: n-octanol/water:**	Not determined.
· **Viscosity:**	
dynamic at 20 °C:	1.2 mPas
kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	97.0 %
· **9.2 Other information**	No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.
· **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:**
None in case of intended use and storage in compliance with instructions.

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 that are relevant for classification:**		
64-17-5 ethanol		
Oral	LD50	10,470 mg/kg (rat) (OECD 401)

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Dermal	LD50	> 20,000 mg/kg (rabbit)
Inhalative	LC50	125 mg/l/4h (rat) (OECD 403)

· ***Primary irritant effect:***
· ***Skin corrosion/irritation***
More frequent and continuous contact with the skin may result in irritation of the skin.
· ***Serious eye damage/irritation***
Solvent splash may have reversible irritant effect.
Causes serious eye irritation.
· ***Respiratory or skin sensitisation*** Based on available data, the classification criteria are not met.
· ***Other information (about experimental toxicology):***
Absorption of harmful amounts of ethanol by inhalation at the working place appears only in exceptional cases.

· ***Repeated dose toxicity***		
64-17-5 ethanol		
Oral	NOAEL (90d)	1,730 mg/kg bw/day (rat) (OECD 408)

· ***CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)***
· ***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*** Based on available data, the classification criteria are not met.
· ***STOT-single exposure*** Based on available data, the classification criteria are not met.
· ***STOT-repeated exposure*** Based on available data, the classification criteria are not met.
· ***Aspiration hazard*** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· ***12.1 Toxicity***

· ***Aquatic toxicity:***	
64-17-5 ethanol	
EC50 (static)	5,012 mg/l/48h (Ceriodaphnia dubia) (ASTM E729-80)
EC50 (static)	675 mg/l/96h (Chlorella vulgaris) (OECD 201)
LC50 (dynamic)	15,300 mg/l/96h (Pimephales promelas) (US EPA E03-05)

· ***12.2 Persistence and degradability*** biodegradable
· ***Other information:*** There are no data available about the preparation.
· ***12.3 Bioaccumulative potential*** Does not accumulate in organisms
· ***12.4 Mobility in soil*** No further relevant information available.
· ***Additional ecological information:***
· ***General notes:***
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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***
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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The waste code numbers mentioned are recommendations based on the probable use of the product.

· ***European waste catalogue***	
07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 01 00	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 04*	other organic solvents, washing liquids and mother liquors
14 00 00	WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (except 07 and 08)
14 06 00	waste organic solvents, refrigerants and foam/aerosol propellants
14 06 03*	other solvents and solvent mixtures

· ***Uncleaned packagings:***
· ***Recommendation:***
Dispose of packaging according to regulations on the disposal of packagings.
Non contaminated packagings can be used for recycling.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

SECTION 14: Transport information

· ***14.1 UN-Number***	
· ***ADR, IMDG, IATA***	UN1170
· ***14.2 UN proper shipping name***	
· ***ADR***	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
· ***IMDG***	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
· ***IATA***	ETHANOL SOLUTION
· ***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.
· ***Kemler Number:***	33
· ***EMS Number:***	F-E,S-D

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· **Stowage Category**	A
· **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 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **Seveso category** P5c FLAMMABLE LIQUIDS
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40

· **National regulations**

· **Information about limitation of use:**
Employment restrictions concerning pregnant and lactating women must be observed.

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **Substances of very high concern (SVHC) according to REACH, Article 57**
None of the ingredients is contained.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they 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.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

· **Department issuing data specification sheet:**
This Material Safety Data Sheet has been drawn up in cooperation with:
DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,
phone: (+49) 511 42079 - 0, reach@dekra.com.

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· ***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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
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
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3