

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier****Trade name:** eco solve PU 55**1.2. Relevant identified uses of the substance or mixture and uses advised against****Identified uses of the mixture:** Cleaning agents for polyurethane contaminations.
Uses advised against: Undetermined.**1.3. Details of the supplier of the safety data sheet****Supplier:** eco in spółka z ograniczoną odpowiedzialnością sp. k.
ul. Powsińska 18
02-920 Warszawa
Tel.: +48 22 651 68 14
Fax: +48 22 651 81 72
e-mail: biuro@ecoin.pl**E-mail of person responsible for Safety Data Sheet:** biuro@ecoin.pl**1.4. Emergency telephone number**

Tel.: + 48 22 651 68 14 (hours: 8 a.m. – 5 p.m., Monday - Friday) or 112 (24 h)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008, as amended:****Aspiration hazard, category 1 (Asp. Tox. 1).**
May be fatal if swallowed and enters airways (H304)**Acute toxicity (dermal) and acute toxicity (inhalation), category 4 (Acute Tox. 4).**
Harmful in contact with skin or if inhaled (H312 + H332).**Serious eye damage/eye irritation, category 2 (Eye Irrit. 2).**
Causes serious eye irritation (H319)**Hazardous to the aquatic environment - chronic hazard, category 3 (Aquatic Chronic 3)**
Harmful to aquatic life with long lasting effects (H412)**Classification according to Directive 1999/45/EC, as amended:****Harmful (Xn)**
Harmful by inhalation and in contact with skin (R20/21)
Harmful: may cause lung damage if swallowed (R65)

Safety Data Sheet in accordance with Regulation EC 1907/2006 with amendments

Date of compilation: 02.02.2015

Version: EN-1

Irritant (Xi)

Irritating to eyes (R36)

Repeated exposure may cause skin dryness or cracking (R66)

Dangerous to the environment

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R52/53)

Adverse effects on human health:

High concentrations of vapors or direct mixture getting into the eyes may result in irritation, redness, tearing, burning, conjunctivitis. Contact with skin can cause itching, local redness, inflammation, and prolonged contact - dryness and flaking of the skin. Inhalation of vapors in high concentration may cause tiredness, weakness, drowsiness, headache, dizziness, cough, short breath. Ingestion causes nausea, vomiting, with the risk of aspiration, which can lead to aspiration of the respiratory tract, leading to pneumonia or pulmonary edema.

Adverse effects on the environment:

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Effects related to the physicochemical properties:

Product vapors are heavier than air and may form explosive mixtures with air. Accumulate on the surface of the ground and the lower parts of rooms. Containers exposed to fire or high temperatures may explode.

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008, as amended:****Pictograms:****Signal word:** DANGER.**Hazard statements:**

H304 May be fatal if swallowed and enters airways.

H312 + H332 Harmful in contact with skin or if inhaled.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects

EUH066 Repeated exposure may cause skin dryness or cracking.

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Precautionary statements:

- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P261 - Avoid breathing vapours.
- P271- Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P310 + P331- IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
- P302 + P352 - IF ON SKIN: Wash with plenty of water.
- P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P405 - Store locked up

Additional labelling:

Contains: hydrocarbons, C10-C13 n-alkanes, iso-alkanes, cyclic, aromatic hydrocarbons (2-25%)

Regulation 648/2004, as amended:

Contains $\geq 30\%$ aliphatic and aromatic hydrocarbons, $<5\%$ anionic surfactants.

2.3. Other hazards



The mixture does not meet the criteria for PBT and vPvB.

SECTION 3: Composition/information on ingredients



3.2. Mixtures

Product identifier: eco solve PU 55

Components of the mixture:

Substance name	Index number	CAS No:	EC No:	Mass fraction in %	Classification according to Directive 67/548/EEC			Classification according to Regulation (EC) No.: 1272/2008	
					Sign	Symbol	R-phrases	Hazard class and code of category	Hazard Statements
Hydrocarbons, C10-C13 n-alkanes, iso-alkanes, cyclic, aromatic hydrocarbons (2-25%) Registration No: 01-2119473977-17-XXXX	-	-	919-164-8	50 - 100		Xn - -	65 66 52-53	Asp. Tox. 1 - Aquatic Chronic 3	H304 EUH066* H412
2-butoxyethyl acetate Registration No: 01-2119475778-47-XXXX	607-038-00-2	112-07-2	203-933-3	10 - 25		Xn	20/21	Acute Tox. 4 Acute Tox. 4 Acute Tox. 4	H302 H312 H332

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2- (2-Butoxyethoxy) ethanol Registration No: 01- 2119475104-44-XXXX	603-096-00-8	112-34-5	203-961-6	10- 25		Xi	36	Eye Irrit.2	H319
Poly (oxy-1,2-ethanediyl), a- dodecyl-alpha (hydroxy) - phosphate	-	25852-43-3	-	< 2,5		Xi	38-41	Skin Irrit. 2 Eye Dam. 1	H315 H318

*Statement EUH066 and Press. Gas. – should be placed only on the label.

The full text of R-phrases, H-statements, hazard classes and codes of categories are given in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation:

Remove the victim from exposure, place in a comfortable reclining or sitting position, keep calm, protect against heat loss. If you experience abnormal breathing, give artificial respiration. If symptoms persist, call a physician.

After contact with skin:

Immediately rinse with plenty of water. Remove contaminated clothing. Wash off contaminated skin with soap and water. If necessary, consult a doctor.

After contact with eyes:

Immediately rinse with plenty of fresh water for at least 15 minutes. Remove contact lenses. Avoid strong stream of water due to the risk of mechanical damage to the cornea. If irritation persists, consult a doctor.

After ingestion:

If swallowed, do not induce vomiting because of the danger of aspiration of the product into the lungs. Provide medical assistance immediately.

4.2. Most important symptoms and effects, both acute and delayed

High concentrations of vapors or direct mixture getting into the eyes may result in irritation, redness, tearing, burning, conjunctivitis. Contact with skin can cause itching, local redness, inflammation, and prolonged contact - dryness and flaking of the skin. Inhalation of vapors in high concentration may cause tiredness, weakness, drowsiness, headache, dizziness, coughing, short breath. Ingestion causes nausea, vomiting, with the risk of aspiration, which can lead to aspiration of the respiratory tract, leading to pneumonia or pulmonary edema.

4.3. Indication of any immediate medical attention and special treatment needed

No special requirements. Symptomatic treatment.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam, carbon dioxide, dry powder, water spray jet.

Not suitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Toxic fumes may release in a fire: carbon oxides, phosphorus oxides.

5.3. Advice for firefighters

Combustible liquid. Vapours can form explosive mixtures with air, are heavier than air and may accumulate on the surface of the earth and in the lower parts of premises. Containers exposed to fire cool from a safe distance with water spray (risk of explosion); if possible, remove them from the danger zone. Clothing gas-tight and antistatic, self-contained respiratory protection.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Wear required protective clothing. Remove sources of ignition (open fire, prohibit smoking and using sparking tools). Remove unsecured and not involved in the removal of a failure persons of the danger zone. Avoid direct contact with the mixture. Avoid breathing vapors.

6.2. Environmental precautions

Prevent from entering drains, surface waters, groundwater and soil.

6.3. Methods and material for containment and cleaning up

Secure sink basins. If possible, stop the leak (close liquid flow, seal). Place damaged packaging in replacement container. Dilute vapors with water spray. Remove sources of ignition (open fire, prohibit smoking and using sparking tools). Adsorb small amounts with chemically inert binding material (sand, diatomaceous earth), transfer to tight containers and give for disposal. Wash out with water polluted surfaces.

6.4. Reference to other sections

Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Provide adequate general and local ventilation. Keep away from sources of heat and ignition. Take precautionary measures during work with the mixture in order to avoid contact with skin and eyes. Do not breathe vapors. Prevent from entering into drains, groundwater surfaces and

soil. Do not eat, drink or smoke during use. Wash out hands during breaks and after work. Remove contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Store in original, properly labeled, tightly closed containers in a cool (room temperature), dry, well-ventilated storage area, equipped with electrical and explosion proof ventilation. Keep away from oxidizers, sources of heat and ignition. Protect from sunlight.

7.3. Specific end use(s)

No further recommendations.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EU Indicative Exposure Limit Values:

Name of substance:	CAS:	Value:	Units:	
2-butoxyethyl acetate	112-07-2	133	mg/m ³	(8-hour TWA)
- skin		20	ppm	(8-hour TWA)
		333	mg/m ³	(STEL, 15 min)
		50	ppm	(STEL, 15 min)

Poland - Exposure Limit Values:

Name of substance:	CAS:	Value:	Units:	
2-butoxyethyl acetate	112-07-2	100	mg/m ³	(NDS)
		300	mg/m ³	(NDSCh)
2- (2-Butoxyethoxy) ethanol	112-34-5	67	mg/m ³	(NDS)
		100	mg/m ³	(NDSCh)

Observe values for your country if were designated.

Standard: EN 689 Workplace atmospheres – guidance for the assessment of exposure to chemical agents for comparison with limit values and measurement strategy

DNEL/DMEL values

DNEL/DMEL values are not available.

PNEC values

PNEC values are not available.

8.2. Exposure controls

8.2.1 Appropriate engineering controls

Necessary general ventilation and local exhaust ventilation, which removes vapors from the place of their emissions. Suction holes of local ventilation at the working level or below. Exhaust air elements of general ventilation with ventilation: at the top of the room and on the floor. Ventilation systems must comply with the conditions determined due to the danger of fire or explosion. Do not use near sources of heat and ignition. In case of insufficient ventilation wear respiratory protection. Ensure eye bath.

8.2.2. Individual protection measures, such as personal protective equipment

Eye protection: safety goggles
Requirements for eye protection: EN 166.



Hand protection: butyl gloves (thickness 0,5 mm, breakthrough time \geq 480 min).
Requirements for hand protection: EN 374.



Skin protection: Wear protective clothing made of natural materials (cotton) or synthetic fibers. The requirements for protective clothing: EN 943.



Respiratory protection: in the case of exceeding the permissible concentrations of vapors use respiratory protection with particle filter marked with white color and a symbol of P2 and vapour filter marked with brown color and the letter A. You can apply complex filters AP. Requirements for respiratory protection equipment: EN 133.

Recommended procedures for monitoring air quality in the workplace:

EU: EN 689, EN 1540.

Hygiene at work: follow the general rules of industrial hygiene. After work take off contaminated clothing. Before breaks at work wash hands and face. After work, wash the entire body. Do not eat, drink or smoke while working. Do not allow to cross in the workplace permissible concentrations. After work, remove contaminated clothing.

Thermal hazards - are not expected from the product

8.2.3. Environmental exposure controls

Prevent from entering drains, surface waters, groundwater and soil.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance: colourless liquid.
Odour: characteristic, as hydrocarbons
Odour threshold: no data available
pH: no data available for the mixture
Melting point/ freezing point: no data available
Initial boiling point and boiling range: 176 °C
Flash point: 63 °C
Ignition temperature: 200 °C

Evaporation rate:	no data available for the mixture
Flammability:	the mixture is flammable
Upper/lower flammability or explosive limits:	upper: 8,4 % (Vol.), lower: 0,6 % (Vol.).
Vapour pressure:	no data available
Vapour density:	no data available
Relative density:	0,824 (water = 1), 20 °C
Solubility:	poorly soluble in water
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available C
Decomposition temperature:	no data available
Viscosity:	no data available
Explosive properties:	vapours of the product with air can form explosive mixtures
Oxidizing properties:	oxidizing properties are not expected.

9.2. Other information

No other data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

In the recommended conditions of storage and (see Subsection 7.2) - no reactivity.

10.2. Chemical stability

Under normal conditions of handling and storage the product is stable.

10.3. Possibility of hazardous reactions

Vapours of the product with air can form explosive mixtures.

10.4. Conditions to avoid

Sources of ignition, open flame, direct sunlight.

10.5. Incompatible materials

Strong oxidizing agents, strong acids and bases, alkaline earth metals.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

Harmful in contact with skin or if inhaled.

Corrosion / irritation:

It is not classified as irritating to the skin, but repeated exposure may cause skin dryness or

cracking.

Serious eye damage / irritation:

Irritating to eyes.

Sensitizing effects on the respiratory system or skin:

Based on available data, the classification criteria are not met.

Mutagenic effects on reproductive cells:

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.

Toxic effects on target organs - single exposure:

May cause respiratory irritation.

Toxic effects on target organs - repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard:

If swallowed and enters respiratory tract can be fatal.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

Acute toxicity:

Component	CAS:	dose	value	unit
Hydrocarbons, C10-C13 n-alkanes, iso-alkanes, cyclic, aromatic hydrocarbons (2-25%)		LC50 fish	10 - 100	mg/l (96h)
		IC50 algae	10 - 100	mg/l (72h)

12.2. Persistence and degradability

Surfactants contained in this product comply with the biodegradability requirements as defined in Regulation 648/2004/EC, as amended.

12.3. Bioaccumulative potential

Partition coefficient octanol/water (Kow):	No data available.
Bioconcentration factor (BCF):	No data available.

12.4. Mobility in soil

No data available for the mixture

12.5. Results of PBT and vPvB assessment

Mixture does not meet the criteria for PBT and vPvB.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Do not dispose as household waste, do not empty into drains. Do not allow contamination of groundwater and surface water. Empty thoroughly containers. Reusable packaging can be (after cleaning) re-used. Packaging disposable (after thorough cleaning) recycle.

Comply with national and local regulations

Special precautions:

Remove the product and its container in a safe way. Be careful when handling empty containers that have not been thoroughly cleaned. Prevent the release of the product into the soil, watercourses and drains.

Community law:

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, as amended.

Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, as amended.

Polish law:

The Act of 14 December 2012 on waste (O.J.2013.0.21), as amended.

The Act of 13 June 2013 on packaging and packaging waste (O.J.2013.0.888).

Regulation of the Minister of the Environment of 9 December 2014 on the catalogue of wastes, (O.J.2014.0.1923)

Proclamation of the Marshal of the Polish Sejm on 4 September 2014 on publication of the consolidated text of the law on obligations of entrepreneurs in the field of management of certain wastes and on product fee, (O.J.2014.0.1413).

SECTION 14: Transport information

The product is **not** classified as dangerous material as defined in national and international transport regulations concerning the transport of dangerous goods.

ADR/RID/ADN, IMDG, IATA

14.1.-14.4 Not applicable.

14.5. Environmental hazards

The product does not pose a risk to the environment in accordance with the criteria in the UN Model Regulations.

14.6. Special precautions for user

Always transport in closed containers and properly secured. Ensure that persons transporting the product know what to do in case of failure.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) 1907/2006 of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Regulation Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 and Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000 / 21/WE (Official Journal of the European Union, series L No 396 of 30 December 2006), as amended.

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (EC) No 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Official Journal of the European Union, series L No 353 of 31 December 2008), as amended.

Act of 25 February 2011 on chemical substances and their mixtures (Dz.U.2011.63.322).

Regulation of the Minister of Health of 10 August 2012 on the criteria and classification of chemical substances and mixtures (Dz.U.2012.0.1018), as amended.

Regulation of the Minister of Economy of 21 December 2005 on the basic requirements for personal protective equipment (Dz.U.2005.259.2173).

Regulation of the Minister of Health of 30 December 2004 on occupational health and safety related to occurrence of chemical agents at work (Dz.U.2005.11.86), as amended.

Regulation of the Minister of Health on 2 February 2011 on the tests and measurements of harmful factors in the work environment (Dz.U.2011.33.166).

Regulation of the Minister of Labour and Social Policy of 14.03.2000 r on occupational health and safety in transport manual handling (Dz.U.2000.26.313), as amended.

Regulation of the Minister of Labour and Social Policy of 6 June 2014 on maximum permissible concentration and intensity of harmful factors in the work environment (Dz.U.2014.0.817).

COMMISSION DIRECTIVE 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment was done for this product.

SECTION 16: Other information

The full text of R-phrases, H-statements, hazard classes and codes of categories mentioned in section 3.

R20/21	Harmful by inhalation and in contact with skin.
R36	Irritating to eyes
R38	Irritating to skin

R41	Risk of serious damage to eyes
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
Xn	Harmful.
Xi	Irritant.
H304	May be fatal if swallowed and enters airways.
H312 + H332	Harmful in contact with skin or if inhaled
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H412	Harmful to aquatic life with long lasting effects
EUH066	Repeated exposure may cause skin dryness or cracking
Asp. Tox 1	Aspiration hazard, hazard category 1
Acute Tox. 4	Acute toxicity (dermal) and acute toxicity (inhalation), hazard category 4
Eye Dam. 1	Serious eye damage/eye irritation, hazard category 1.
Skin Irrit. 2	Skin corrosion/irritation, hazard category 2.
Eye Irrit. 2	Serious eye damage/eye irritation, hazard category 2.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects, hazard category 3.

Recommendations for training staff

As a minimum a safety training at work is recommended. Prior to working with the product the user is required to know the safety rules for safe handling with chemicals, and above all, hold appropriate workplace training.

Sources:

Safety Data Sheet in English: Revision: 01.08.2012, Printing date 01.08.2012, Version 3.

This Safety Data Sheet is not a quality certificate of the product. The information contained herein should be considered only as a help in safe handling the product in transportation, distribution use and storage. The information contained herein apply only to the product and its specific identified uses. They may not be proper or sufficient for the product used in combination with other materials or in other applications than those listed in this Safety Data Sheet. The user of the product is obliged to comply with all applicable standards and regulations, and responsibility resulting from improper use of information contained herein.