CONCENTRATED GEL FOR CLEANING AND DESCALING SANITARY FACILITIES E 420 – VOLUME 0.75 L
CONCENTRATED GEL FOR CLEANING AND DESCALING SANITARY FACILITIES E 425 – VOLUME 5 L

Date of issue: 26/06/2020

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SAFETY DATA SHEET

Prepared in accordance with Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) 2020/878

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

1.1 Product identifier:
E 270 – Professional cleaner for degreasing various surfaces Strong Degrease 0.5 L
E 275 – Professional cleaner for degreasing various surfaces Strong Degrease 5 L

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Identified uses: Concentrated preparation for manual or machine cleaning of greasy dirt from all surfaces resistant to alkalis. Preparation for professional use.
Uses advised against: Not specified.

1.3 Details of the supplier of the safety data sheet:

Company name and address: ENZIM sp. z o.o., ul. Morska 58C, 75-227 Koszalin, Poland
Telephone number: +48 532-481-999
E-mail address of the person responsible for the SDS: biuro@enzim.pl

1.4 Emergency telephone number:
Manufacturer: +48 (61) 81 07 819, GSM +48 604 529 067 (from 8:00 to 16:00)
998 Fire Brigade
112 Emergency Notification Centre

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:
Skin Corr. 1B, H314, **Eye Dam**. 1, H318, **STOT SE** 3, H335, **Aquatic Chronic** 3, H412
Hazard statements:
Causes severe skin burns and eye damage, Causes serious eye damage, May cause respiratory irritation.
Harmful to aquatic life with long lasting effects.

2.2 Label elements
Pictogram(s) and signal word:

Signal word: Danger

Hazardous components for labelling:
Contains: 2-aminoethanol; Alcohols, C12-13, branched and linear, ethoxylated

Hazard statements (H):

- **H314** – Causes severe skin burns and eye damage.
- **H335** – May cause respiratory irritation.
- **H412** – Harmful to aquatic life with long lasting effects.

Precautionary statements (P):

- **P280** – Wear protective gloves/protective clothing/eye protection/face protection.
- **P301+P312** – IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- **P301+P330+P331** – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- **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.
- **P310** – Immediately call a POISON CENTER/doctor.
- **P363** – Wash contaminated clothing before reuse.
- **P501** – Dispose of contents/container to appropriately labelled waste containers in accordance with national regulations.

2.3 Other hazards
The components of the mixture do not meet the criteria for PBT or vPvB according to Annex XIII of REACH Regulation. The components of the mixture are not assessed as substances with endocrine-disrupting properties.

SECTION 3: Composition / information on ingredients

3.1 Substances
Not applicable – the product is a mixture.

3.2 Mixtures

CAS No.	EC No.	Index No.	Registration No.	Name	Classification (CLP)	Specific concentration limits (SCL) / Notes	Concentration (%)
160901-09-7	931-954-4	-	-	Alcohols, C12-13, branched and linear, ethoxylated	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412	Eye Dam. 1, H318: C > 10% Eye Irrit. 2, H319: 1% < C ≤ 10%	5–10%
141-43-5	205-483-3	603-030-00-8	01-2119486455-28-XXXX	2-aminoethanol[1] [2]	Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Acute Tox. 4, H332; STOT SE 3, H335	STOT SE 3, H335 ≥ 5%	<10%
7320-34-5	230-785-7	-	01-2119489369-18-XXXX	Tetrapotassium pyrophosphate	Eye Irrit. 2, H319	-	<5%
112-34-5	203-961-6	603-096-00-8	01-2119475104-44-XXXX	2-(2-butoxyethoxy)ethanol[1] [2]	Eye Irrit. 2, H319	-	<5%
25307-17-9	246-807-3	-	01-2119510876-35-XXXX	2,2'-(Octadec-9-enylimino)bisethanol	Acute Tox. 4, H302; Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=1); Aquatic Chronic 1, H410 (M=1)	-	<1%

[1] substance with a national occupational exposure limit (OEL).
[2] substance with an EU occupational exposure limit (OEL).

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures
General advice: Contaminated clothing should be removed immediately.
Skin contact: In case of contact with skin (or hair): immediately remove all contaminated clothing. Rinse skin with plenty of water and soap. Seek medical attention immediately.
Eye contact: Remove contact lenses. Rinse eyes thoroughly with plenty of water for at least 15 minutes. Avoid using a strong stream of water – risk of corneal damage. Contact an ophthalmologist immediately, apply a sterile dressing.
Ingestion: Do not induce vomiting. Rinse mouth with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Consult a doctor.
Inhalation: Move the affected person to fresh air, keep warm and calm. Seek medical attention if symptoms persist or worsen. In case of unconsciousness, place the person in the recovery position and monitor vital functions.

4.2 Most important symptoms and effects, both acute and delayed

- Inhalation: cough, respiratory tract irritation.
- Skin contact: itching, redness, irritation, possibility of severe skin damage.

- Eye contact: irritation, redness, tearing, risk of severe eye damage.
- Ingestion: abdominal pain, nausea, vomiting, damage/perforation of the gastrointestinal tract.

4.3 Indication of any immediate medical attention and special treatment needed
Symptomatic treatment. No specific antidote available.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing media: Water, extinguishing powders, carbon dioxide, alcohol-resistant foams. Adjust extinguishing measures to the surrounding materials.
- Unsuitable extinguishing media: full jet of water – risk of spreading the fire.

5.2 Special hazards arising from the substance or mixture
In fire conditions, harmful gases and other unidentified thermal decomposition products may be released. Avoid inhaling combustion products; they may pose a health hazard.

5.3 Advice for firefighters
Wear standard protective firefighting equipment. Do not remain in the fire-exposed zone without chemical-resistant protective clothing and self-contained breathing apparatus. Cool endangered containers with sprayed water from a safe distance. Prevent fire-fighting water from entering drains, surface water or groundwater. Collect used extinguishing agents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel: restrict access to the contaminated area until clean-up operations are completed. In case of large spills, isolate the danger zone. Provide adequate ventilation. Do not inhale vapours. Avoid contact with skin and eyes. Use personal protective equipment. Note: spilled product may create slippery surfaces.
- For emergency responders: ensure that clean-up is carried out by trained personnel only. Use personal protective equipment.

6.2 Environmental precautions
Do not allow to enter drains, surface water or soil. In case of larger spills, take steps to prevent spreading into the natural environment. Notify appropriate emergency services.

6.3 Methods and material for containment and cleaning up

- Large spill: dike the spill area, pump out collected liquid.
- Small spill: place damaged container in a secondary container. Collect spilled liquid with absorbent materials (sand, sawdust). Rinse residue with plenty of water and ventilate thoroughly.

6.4 Reference to other sections

- For disposal considerations: see Section 13.
- For personal protective equipment: see Section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Work in accordance with occupational health and safety rules. Do not eat, drink, or smoke while using the product. Wash hands before breaks and after work. Avoid contact with eyes and skin. Do not inhale vapours. Ensure proper ventilation. Use personal protective equipment. Seal containers after opening and store upright to prevent leakage. Keep unused containers tightly closed.

7.2 Conditions for safe storage, including any incompatibilities
Store in original, tightly closed containers in dry, well-ventilated rooms. Avoid overheating and exposure to very low temperatures. Do not store together with food, beverages, or animal feed. Do not store together with incompatible substances (see subsection 10.5).

7.3 Specific end use(s)
No information on uses other than those listed in subsection 1.2.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Specification	TWA (NDS)	STEL (NDSCh)	Ceiling (NDSP)
2-aminoethanol [CAS 141-43-5]*	2.5 mg/m^3	7.5 mg/m^3	–
2-(2-butoxyethoxy)ethanol [CAS 112-34-5]	67 mg/m^3	100 mg/m^3	–

* Absorption of the substance through the skin may be as significant as inhalation exposure.
Legal basis: Journal of Laws 2018, item 1286 with later amendments.

Recommended monitoring procedures:
Procedures for monitoring concentrations of hazardous components in the air and workplace air quality control procedures should be applied – if available and justified at the workplace – in accordance with relevant Polish or European Standards, considering the conditions at the place of exposure and the appropriate measurement methodology adapted to the working conditions. The mode, type, and frequency of tests and measurements should meet the requirements of the Regulation of the Minister of Health of 2 February 2011 (Journal of Laws 2011, No. 33, item 166).

8.2 Exposure controls

Appropriate technical controls:
Follow general occupational safety and hygiene rules. Do not eat, drink, or smoke in the workplace. Wash hands before breaks and after finishing work. After cleaning, use skin emollients. Eye wash stations should be installed near workstations. If there is a risk of splashing workers with corrosive agents, safety showers and eye wash stations should be installed nearby, as the product poses a risk of severe eye damage.

Personal protective equipment:
The need for and selection of appropriate personal protective equipment should take into account the type of hazard posed by the product, workplace conditions, and the way the product is handled. Personal protective equipment must comply with Regulation (EU) 2016/425 and relevant standards. The employer must provide protective equipment suitable for the tasks performed, meeting all quality requirements, including maintenance and cleaning. Any contaminated or damaged protective equipment must be replaced immediately.

- **Eye and face protection:** Safety glasses complying with EN 166.
- **Hand and skin protection:** Protective gloves complying with EN 374. Standard work clothing for other exposed skin areas.
- **Respiratory protection:** Not required under normal and intended use.
- **Thermal hazards:** Not applicable.

Environmental exposure controls:
Do not allow large quantities of the product to enter groundwater, sewage systems, surface water, or soil.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: liquid
Colour: light yellow, clear liquid without mechanical impurities (slight opalescence allowed)
Odour: characteristic of the fragrance composition used
Melting/freezing point: not determined
Boiling point or initial boiling point and boiling range: > 100 °C
Flammability: non-flammable
Lower and upper explosion limits: not determined
Flash point: not determined
Auto-ignition temperature: product is not self-igniting
Decomposition temperature: not determined
pH: 11.5 – 12.5
Kinematic viscosity: not determined
Solubility: unlimited in water
Partition coefficient n-octanol/water (log value): not determined
Vapour pressure: not determined
Density or relative density: 1.01 – 1.06 g/cm³
Relative vapour density: not determined
Particle characteristics: not determined

9.2 Other information
No further relevant data available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
The product is reactive. It does not undergo hazardous polymerisation.

10.2 Chemical stability
Stable under proper storage conditions.

10.3 Possibility of hazardous reactions
Hydrogen may be released in reaction with certain metals. Reacts exothermically with bases.

10.4 Conditions to avoid
Avoid elevated and very low temperatures.

10.5 Incompatible materials
Strong acids, oxidisers.

10.6 Hazardous decomposition products
In fire conditions, harmful gases and other unidentified thermal decomposition products may be released. Avoid inhalation of combustion products; they may pose a health hazard.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicity of components:

2-(2-butoxyethoxy)ethanol:
Oral LD50 = 5660 mg/kg (rat); Dermal LD50 = 2700 mg/kg (rabbit).

Alcohols, C12-13, branched and linear, ethoxylated:
Oral LD50 = 1100–3400 mg/kg (rat); Dermal LD50 > 2000 mg/kg (rabbit).

2-aminoethanol:
Oral LD50 = 1510 mg/kg (rat); Dermal LD50 = 1000 mg/kg (rabbit).
Approximate lethal dose for adult human: 50 g.

Tetrapotassium pyrophosphate:
Oral LD50 > 2000 mg/kg (rat).

Toxicity of mixture:

Acute toxicity (ATEmix):
• Oral > 2000 mg/kg
• Dermal > 2000 mg/kg

Inhalation (vapours) = 73 mg/l
(*ATEmix calculated according to conversion factors from Table 3.1.2 of Regulation (EC) 1272/2008 with later amendments.*)

Skin corrosion/irritation: Causes severe skin burns.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: Based on available data, criteria are not met.
Germ cell mutagenicity: Based on available data, criteria are not met.
Carcinogenicity: Based on available data, criteria are not met.
Reproductive toxicity: Based on available data, criteria are not met.
STOT – single exposure: May cause respiratory irritation.
STOT– repeated exposure: Based on available data, criteria are not met.
Aspiration hazard: Based on available data, criteria are not met.

Likely routes of exposure:
Skin contact, eye contact, inhalation, ingestion.

Symptoms related to physical, chemical and toxicological characteristics:
Inhalation: cough, respiratory irritation.
Skin contact: itching, redness, irritation, possibility of severe skin damage.
Eye contact: irritation, redness, tearing, risk of severe eye damage.
Ingestion: abdominal pain, nausea, vomiting, damage/perforation of the gastrointestinal tract.

Delayed, immediate and chronic effects of short- and long-term exposure:
No additional information available.

11.2Information on other hazards

Endocrine disrupting properties: Components are not assessed as substances with endocrine-disrupting properties.
Other information: Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity of components:

2-(2-butoxyethoxy)ethanol:
Fish (Lepomis macrochirus) LC50 = 1300 mg/l (96h).
Invertebrates (Daphnia magna) EC50 = 3200 mg/l (24h).
Activated sludge bacteria (Pseudomonas putida) EC50 = 1170 mg/l (18h).

Alcohols, C12-13, branched and linear, ethoxylated:
Fish LC50 = 2.6 mg/l (96h, freshwater).
Daphnia EC50 = 1.2–1.4 mg/l (48h, freshwater).
Algae EC50 = 0.85–1.7 mg/l (72h, freshwater).

2-aminoethanol:
Fish (Carassius auratus) LC50 = 170 mg/l (96h).
Invertebrates (Daphnia magna) EC50 = 65 mg/l (48h).
Activated sludge bacteria (Pseudomonas putida) EC50 = 110 mg/l (17h).

Tetrapotassium pyrophosphate:
Fish LC0 = 750 mg/kg (48h).

Toxicity of mixture:
Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability
The surfactant contained in the preparation is not considered hazardous to the environment.
Abiotic degradation: no data.
Physical and photochemical elimination: no data.
Biodegradability: biodegradable.

12.3 Bioaccumulative potential
Partition coefficient: no data available.
Bioconcentration factor: no data available.

12.4 Mobility in soil
Known or predictable distribution in environmental compartments: no data available.
Surface tension: no data available.
Adsorption/desorption: no data available.

12.5 Results of PBT and vPvB assessment
The components of the mixture do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

12.6 Endocrine disrupting properties
The components of the mixture are not assessed as substances with endocrine-disrupting properties.

12.7 Other adverse effects
The mixture is not classified as hazardous to the ozone layer. Consider possible other adverse environmental effects of individual mixture components (e.g. contribution to global warming).

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Recommendations for the mixture: Dispose of in accordance with applicable regulations. Do not discharge into drains. Waste product should be recovered or disposed of in authorised incineration plants or waste treatment facilities. Waste code must be assigned at the place of generation. Classify waste as hazardous.

Recommendations for used packaging: Recovery / recycling / disposal of packaging waste should be carried out in accordance with applicable regulations. Only completely emptied containers may be sent for recycling.

Relevant EU legislation: Directives 2008/98/EC as amended, 94/62/EC as amended.
Relevant national legislation (Poland): Journal of Laws 2013, item 21 as amended; Journal of Laws 2013, item 888 as amended.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number: UN 3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (2-AMINOETHANOL)
14.3 Transport hazard class(es): 8
14.4 Packing group: III
14.5 Environmental hazards: According to applicable regulations, not classified as hazardous to the environment.
14.6 Special precautions for user: Wear personal protective equipment specified in Section 8 of the SDS.
14.7 Transport in bulk according to IMO instruments: Not applicable.

SECTION 15: REGULATORY INFORMATION

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

ADR Agreement concerning the International Carriage of Dangerous Goods by Road.
IMDG Code – International Maritime Dangerous Goods Code.
IATA Dangerous Goods Regulations.
Regulation (EC) No 1907/2006 (REACH).
Regulation (EC) No 1272/2008 (CLP).
Commission Regulation (EU) 2020/878 amending Annex II of REACH.
Directive 2000/39/EC establishing the first list of indicative occupational exposure limit values.
Directive 2006/15/EC establishing the second list of indicative occupational exposure limit values.
Directive 2009/161/EU establishing the third list of indicative occupational exposure limit values.
Directive 2017/164/EU establishing the fourth list of indicative occupational exposure limit values.
Directive 2019/1831/EU establishing the fifth list of indicative occupational exposure limit values.
Directive 2008/98/EC on waste, as amended.
Directive 94/62/EC on packaging and packaging waste, as amended.
Regulation (EU) 2016/425 on personal protective equipment.
Polish Chemical Substances and Mixtures Act (Journal of Laws 2011, No. 63, item 322, as amended)
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on maximum allowable concentrations and intensities of harmful factors in the work environment (Journal of Laws 2018, item 1286, as amended).

Waste Act of 14 December 2012 (Journal of Laws 2013, item 21, as amended).
Act on Packaging and Packaging Waste Management of 13 June 2013 (Journal of Laws 2013, item 888, as amended).
Regulation of the Minister of Climate of 2 January 2020 on the waste catalogue (Journal of Laws 2020, item 10).
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of factors harmful to health in the working environment (Journal of Laws 2011, No. 33, item 166, as amended).

The components of the substance are not included on the REACH candidate list.

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out for the mixture.

SECTION 16: OTHER INFORMATION

Explanation of abbreviations and acronyms:
Eye Irrit. 2 – Causes serious eye irritation, Category 2
Eye Dam. 1 – Causes serious eye damage, Category 1
Acute Tox. 4 – Acute toxicity, Category 4
Skin Corr. 1B – Skin corrosion, Category 1B
STOT SE 3 – Specific target organ toxicity – single exposure, Category 3
PBT – Persistent, bioaccumulative and toxic substances
vPvB – Very persistent and very bioaccumulative substances

List of relevant H-statements:
H302: Harmful if swallowed.
H312: Harmful in contact with skin.H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.

Training advice:
Personnel handling hazardous substances should be trained in safe handling, health and safety. Persons involved in the transport of dangerous goods under ADR should be appropriately trained (general, function-specific, and safety training).

References to key literature and data sources:
This Safety Data Sheet was prepared based on safety data sheets of individual ingredients, literature data, internet databases (e.g. ECHA, TOXNET, COSING), and the available knowledge and experience, in compliance with current legal regulations.

Procedures used to derive classification of the mixture:
Classification was based on the content of hazardous ingredients using the calculation method according to Regulation (EC) No 1272/2008 (CLP) as amended.

Additional information:
Prepared by: eDoradztwoChemiczne
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Changes: Sections 1–16 updated.

The above information is based on currently available data, knowledge, and experience regarding the product. It does not constitute a quality specification of the product nor a guarantee of specific properties. It should be treated as assistance for safe transport, storage, and use of the product. It does not exempt the user from responsibility for improper application of this information and from compliance with all applicable legal regulations.