

Safety data sheet

according to ChemO 2015 – SR 813.11

Printing date 23.05.2024

Version number 2 (replaces version 1)

Revision: 23.05.2024

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

1.1 Product identifier

Trade name: **Pefabloc SC**

Article number: 399-01

CAS Number:

30827-99-7

EC number:

608-547-2

1.2 Relevant identified uses of the substance or mixture and uses advised against

Application of the substance / the mixture: Diagnostic reagent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Pentapharm AG

Dornacherstrasse 112

CH- 4147 Aesch / Switzerland

Phone +41 61 706 48 48

Fax +41 61 706 48 00

Further information obtainable from: pentapharm@pentapharm.com

1.4 Emergency telephone number: Tox Info Suisse : +41 44 251 51 51 (24h; 7 days a week)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



Skin Sens. 1 H317 May cause an allergic skin reaction.

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



GHS05



GHS07

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Signal word Danger**Hazard-determining components of labelling:**

4-(2-Aminoethyl)-benzensulfonylfluorid

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards

As a potent enzyme inhibitor, this compound should not come in contact with wounds. This compound shall not be inhaled, ingested or get in contact with eyes. Pefabloc® SC is not volatile. Due to a melting point of approx. 175°C, no volatile components are expected under normal conditions. Decomposition with moisture and/or water.

Results of PBT and vPvB assessment**PBT:** According to current knowledge, the product contains no PBT substance.**vPvB:** According to current knowledge, the product contains no vPvB substance.**Determination of endocrine-disrupting properties**

Taking into account the current state of scientific knowledge, no data on endocrine disrupting properties of the product are available.

SECTION 3: Composition/information on ingredients

3.1 Substances**CAS No. Description**

30827-99-7 4-(2-Aminoethyl)-benzensulfonylfluorid

EC number: 608-547-2**SVHC:** According to current knowledge no SVHC contained.

SECTION 4: First aid measures

4.1 Description of first aid measures**General information:** Immediately remove any clothing soiled by the product.**After inhalation:**

Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

After skin contact:

Wash with plenty of water and soap.

If skin irritation or rash occurs: Get medical advice/attention.

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After eye contact:

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER/doctor.

After swallowing:

Do NOT induce vomiting.

Rinse mouth thoroughly. If affected person is unconscious do not put anything in the mouth.

Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

The substance is a potent enzyme inhibitor.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:** CO₂, foam, dry powder or water spray.**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

Carbon oxides (CO and CO₂).Nitrogen oxides (NO_x)Sulfur oxides (SO_x)

Hydrogen chloride (HCl)

Hydrogen fluoride (HF)

5.3 Advice for firefighters**Protective equipment:**

Wear self-contained respiratory protective device.

Wear protective clothing to prevent contact with skin and eyes.

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

Avoid skin and eye contact and particle inhalation.

Mount respiratory protective device.

6.2 Environmental precautions Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up**

Pick up mechanically.

Collect in suitable containers.

Clean the affected area carefully and ensure adequate ventilation.

Avoid dust formation.

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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

Thorough dedusting.
Avoid skin and eye contact and particle inhalation.
Wash contaminated clothing before reuse.

Information about fire - and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store the product in a dry place protected from light at a temperature between +2°C and +8°C.
Store under argon.
Protect from heat and direct sunlight.
Protect from humidity and water.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

Ingredients with biological limit values:

Additional Occupational Exposure Limit Values for possible hazards during processing:

OEL Pefabloc® SC = 56 µg/m³, Time Weighted Average 8 h, skin notation; Health Hazard band (HHB)3
Acceptable Surface Limit (ASL, wipe test criterion): based on the OEL, an acceptable daily dose = 560 µg/day.
ASL Pefabloc® SC = 31 µg/100 cm²

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

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Ensure good ventilation/exhaustion at the workplace.
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
Wash hands before breaks and at the end of work.

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Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P3

Respiratory protection must be compliant with the specifications of the Regulation (EU) 2016/425 and be in accordance with the EN standards resulting thereof.

Hand protection:



Protective gloves

Material of gloves

Nitrile

Protective gloves must be compliant with the specifications of the Regulation (EU) 2016/425 and be in accordance with the standards EN374. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye/face protection



Safety glasses

Face protection

Protective goggles must be compliant with the specifications of the Regulation (EU) 2016/425 and be in accordance with the standard EN166 (EU) or NIOSH (US).

Environmental exposure controls Do not allow to enter sewers/ surface or ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state:	Solid
Colour:	White to off-white
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	175 - 185 °C
Boiling point or initial boiling point and boiling range:	Not determined.
Flammability:	The product is not flammable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not determined.
Auto-ignition temperature:	Not determined.

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Decomposition temperature:	Not determined.
pH:	Not applicable.
Viscosity	
Kinematic:	Not applicable.
Dynamic:	Not applicable.
Solubility	
water:	Completely soluble.
Partition coefficient n-octanol/water (log value):	Not applicable.
Vapour pressure:	Not applicable.
Density and/or relative density	
Relative density:	Not determined.
Vapour density:	Not determined.
Particle characteristics:	Not determined.

9.2 Other information

Appearance

Form: Crystalline powder

Important information on protection of health and environment, and on safety

Ignition temperature:	Not determined.
Explosive properties:	The product does not present an explosion hazard.
Solvent content:	
VOC (EC)	Not determined.
VOCV (CH)	Not determined.
Change in condition	
Softening point/range:	
Oxidising properties:	Not determined.
Evaporation rate:	Not applicable.

9.2.1 Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void

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Corrosive to metals

Void

Desensitised explosives

Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability No decomposition if used according to specifications.

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

Avoid humidity.

Heat.

10.5 Incompatible materials

Strong acids and strong bases.

Oxidizing agents.

10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO_x)

Sulphur oxides (SO_x)

Hydrogen chloride (HCl)

Hydrogen fluoride

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification: No further relevant information available.

Skin corrosion/irritation Causes severe burns.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation May cause an allergic skin reaction.

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

No observed adverse effect level (NOAEL) = 47.9 mg/kg bw, neurotoxic effect (ataxia), test organism: hen

Available data not sufficient to determine classification.

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

Other information:

As a potent enzyme inhibitor, this compound should not come in contact with wounds. This compound shall not be inhaled, ingested or get in contact with eyes. Pefabloc® SC is not volatile. Due to a melting point of approx.

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175°C, no volatile components are expected under normal conditions. Decomposition with moisture and/or water.

Subacute to chronic toxicity:

No observed adverse effect level (NOAEL) = 47.9 mg/kg bw, neurotoxic effect (ataxia), test organism: hen
Available data not sufficient to determine classification.

11.2 Information on other hazards
Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Based on the ingredients not classified as harmful for the environment.

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.

12.5 Results of PBT and vPvB assessment

PBT: According to current knowledge, the product contains no PBT substance.

vPvB: According to current knowledge, the product contains no vPvB substance.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects
Additional ecological information:

General notes: Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation: Disposal must be made according to official regulations.

Ordinance of the Federal Department of the Environment, Transport, Energy and Communications (DETEC) on Lists for Waste Traffic (SR 814.610.1)

18 00 00: Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)

18 01 00: Wastes from natal care, diagnosis, treatment or prevention of disease in humans

18 01 06S: chemicals consisting of or containing dangerous substances

S=hazardous waste

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Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/ADN, IMDG, IATA

UN3261

14.2 UN proper shipping name

ADR/ADN

3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-(2-Aminoethyl)-benzensulfonylfluorid)

IMDG, IATA

CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-(2-Aminoethyl)-benzensulfonylfluorid)

14.3 Transport hazard class(es)

ADR/ADN, IMDG, IATA


Class

8 Corrosive substances.

Label

8

14.4 Packing group

ADR/ADN, IMDG, IATA

II

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user
Hazard identification number (Kemler code):

Warning: Corrosive substances.

80

EMS Number:

F-A,S-B

Segregation groups

(SGG1) Acids

Stowage Category

B

14.7 Maritime transport in bulk according to
IMO instruments

Not applicable.

Transport/Additional information:
ADR/ADN
Limited quantities (LQ)

1 kg

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

Transport category

2

Tunnel restriction code

E

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IMDG**Limited quantities (LQ)**

1L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

UN "Model Regulation":UN 3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
(4-(2-AMINOETHYL)-BENZENSULFONYLFLUORID), 8, II

SECTION 15: Regulatory information

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

National regulations:

Special handling requirements (follow-up requirements) of the chemicals legislation:

Substance or preparation in Group 2 (Annex 5 ChemO):

To be kept inaccessible to unauthorised persons (Article 62 ChemO).

To be filled into and stored in containers only if these are labelled with the appropriate danger symbols or hazard pictograms (Art. 62 ChemO).

Must not be offered on a self-service basis to private users (Art. 63 ChemO).

To be commercially supplied only to persons having capacity to act (Art. 64 ChemO).

To be supplied to minors only if they are capable of judgement and have to handle these substances or preparations in the course of their training or in a professional or commercial capacity (Article 64 ChemO).

Suppliers are obliged, at the time of supply, to explicitly inform private users of the precautions required and the correct method of disposal (Article 65 ChemO).

Supply only to persons who can be assumed by the supplier to be capable of judgement and able to comply with the duty of care specified in Article 8 ChemO and the requirements set out in Article 28 of the EPA (Article 65 ChemO).

Special knowledge is required in order to commercially supply the product to private users (Article 66 ChemO).

Ordinance on Air Pollution Control (OAPC; SR 814.318.142.1) Annex 1:

The provisions of the Air Pollution Control (OAPC; SR 814.318.142.1) Annex 1 are to be complied with.

Ordinance on Protection against Major Accidents (Major Accidents Ordinance, MAO; SR 814.012) Annex 1:

Volume threshold according to MAO in kg: 20000 kg

(Source: FOEN - List 2015 - Volume thresholds in accordance with the Major Accidents Ordinance / Volume Threshold Calculator)

Chemical Risk Reduction Ordinance (ORRChem; SR 814.81):

The product contains no substances subject to authorization according to Annex 1.17 in concentrations $\geq 0.1\%$ w/w or above specific concentration limits (if $< 0.1\%$ w/w).

Chemical Risk Reduction Ordinance (ORRChem; SR 814.81):

The preparation or substances contained therein are not subject to any prohibition or restriction in accordance with Annexes 1 and 2.

Ordinance on Chemical Products (ChemO; SR 813.11):

The product contains no substances of very high concern according to Annex 3 in concentrations $\geq 0.1\%$ w/w.

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Information about limitation of use:

Ordinance on the protection of young people in the workplace (SR 822.115, Article 4 paragraph 4) and Ordinance of the EAER on hazardous work for young people (SR 822.115.2, Article 1 lit. f):

Young people undergoing basic vocational training may only work with this product (this substance / this preparation) if the relevant training ordinance makes provision for them to do so with a view to enabling them to achieve their training objectives and if the preconditions for the training plan have been met and the applicable age restrictions have been complied with. Young people who are not completing any basic vocational training are not permitted to work with this product (this substance / this preparation). Employees of either sex who are under 18 years old are classed as young people.

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous to water

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

SECTION 16: Other information

All information and instructions provided in this Safety Data Sheet are based on the current state of scientific and technical knowledge at the date indicated on this Safety Data Sheet. Pentapharm AG shall not be held responsible for any defect in the product covered by this Safety Data Sheet, should the existence of such a defect not be detectable considering the current state of scientific and technical knowledge.

This safety data sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

An asterisk (*) in the left hand margin indicates an amendment from the previous version.

Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

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

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Sens. 1: Skin sensitisation – Category 1