

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

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

1.1 Product identifier

Trade name: **Pefachrome® PL 5272**

Article number: 083-14

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

Application of the substance / the mixture: Chromogenic peptide substrate / 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
Emergency number (24 h; 7 d a week): +41 (0)44 251 51 51; Short no.: 145 (only from Switzerland)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 Void.

Hazard pictograms Void

Signal word Void

Hazard statements Void

Additional information: The health hazards for this substance have not been thoroughly investigated.

2.3 Other hazards

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.

CH/EN

(Contd. on page 2)

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: **Pefachrome® PL 5272**

(Contd. of page 1)

SECTION 3: Composition/information on ingredients

3.2 Mixtures



Description:

Chromogenic peptide substrate bound to p-nitroanilin group (pNA). Free pNA is classified as toxic. The toxic properties of pNA may be present also when bound to a peptide.

Chemical characterisation : H-D-Nle-CHA-Lys-pNA · 2HCl

Name: D-NorleucinyI-cyclohexylalaninyl-lysine-paranitroanilide dichloride salt

Dangerous components:

CAS: 100-01-6	p-nitroaniline	≥0.1-<1%
EINECS: 202-810-1	 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331;	
Index number: 612-012-00-9	 STOT RE 2, H373; Aquatic Chronic 3, H412	
	Note: C	

SVHC: According to current knowledge no SVHC contained.

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: No special measures required.

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.

After eye contact:

Rinse cautiously with water for several minutes.

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

If eye irritation persists: Get medical advice/attention.

After swallowing: Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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, dry chemical powder or appropriate foam.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

(Contd. on page 3)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: **Pefachrome® PL 5272**

(Contd. of page 2)

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.

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.

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

Avoid skin and eye contact and particle inhalation.

Information about fire - and explosion protection: No special measures required.

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.

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:

100-01-6 p-nitroaniline

MAK (Switzerland)	Long-term value: 3 mg/m ³ , 0.5 ppm H C2;
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(Contd. on page 4)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: **Pefachrome® PL 5272**

(Contd. of page 3)

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.

Wash hands before breaks and at the end of work.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Hand protection:



Protective gloves

Material of gloves

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.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Eye/face protection



Safety glasses

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:

Off-white / pale yellow

Odour:

Odourless

Odour threshold:

Not determined.

Melting point/freezing point:

Not determined.

Boiling point or initial boiling point and boiling range:

Not determined.

(Contd. on page 5)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: Pefachrome® PL 5272

(Contd. of page 4)

Flammability:	Not determined.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Auto-ignition temperature:	The product is not self-igniting.
Decomposition temperature:	Not determined.
pH:	Not determined.
Viscosity	
Kinematic:	Not applicable.
Dynamic:	Not applicable.
Solubility	
water:	Completely soluble.
Partition coefficient n-octanol/water (log value):	Not determined.
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: Powder

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

Ignition temperature: The product is not self-igniting.

Explosive properties: The product does not present an explosion hazard.

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

(Contd. on page 6)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: **Pefachrome® PL 5272**

(Contd. of page 5)

Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity The product is sensitive to moisture and absorbs odours.

10.2 Chemical stability No information available.

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 Heat may cause this product to decompose.

10.5 Incompatible materials No further relevant information available.

10.6 Hazardous decomposition products p-Nitroaniline

SECTION 11: Toxicological information

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

Acute toxicity

Non-classification of the product is based on the calculation method and the total concentration of p-nitroaniline (free and bound to the peptide). The health hazards for p-nitroaniline bound to the peptide have not been thoroughly investigated.

May be harmful by inhalation, ingestion, or skin absorption.

LD/LC50 values relevant for classification:

100-01-6 p-nitroaniline

Oral	LD50	750 mg/kg (rat)
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Specific symptoms in biological assay:

Skin corrosion/irritation No data available.

Serious eye damage/irritation No data available.

Respiratory or skin sensitisation

Sensitisation possible through inhalation.

Sensitisation possible through skin contact.

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.

(Contd. on page 7)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: **Pefachrome® PL 5272**

(Contd. of page 6)

Other information:

The toxicological properties of this product have not been thoroughly investigated. Use appropriate precautions.

Repeated dose toxicity

Non-classification of the product is based on the calculation method and the total concentration of p-nitroaniline (free and bound to the peptide). The health hazards for p-nitroaniline bound to the peptide have not been thoroughly investigated.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

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 No further relevant information available.

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

(Contd. on page 8)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: **Pefachrome® PL 5272**

(Contd. of page 7)

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/ADN, ADN, IMDG, IATA

Void

14.2 UN proper shipping name

ADR/ADN, ADN, IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR/ADN, ADN, IMDG, IATA

Class

Void

14.4 Packing group

ADR/ADN, IMDG, IATA

Void

14.5 Environmental hazards

Marine pollutant:

No

14.6 Special precautions for user

Not applicable.

**14.7 Maritime transport in bulk according to
IMO instruments**

Not applicable.

Transport/Additional information:

ADR/ADN

Remarks:

Not classified.

IMDG

Remarks:

Not classified.

IATA

Remarks:

Not classified.

UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

National regulations:

Special handling regulations (follow-up obligations) of the chemical legislation:

No additional regulations.

(Contd. on page 9)

CH/EN

Safety data sheet

according to ChemO 2015 – SR 813.11

Version number 1.0

Revision: 21.01.2025

Trade name: Pefachrome® PL 5272

(Contd. of page 8)

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: without limitation

(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.

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

OVOC (CH) 0.00 %

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.

Relevant phrases

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

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

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

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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