

SAFETY DATA SHEET

Aminopeptidase Reagent

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identification

Aminopeptidase Reagent

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

In vitro laboratory use

1.3 Details of the supplier of the safety data sheet

Rosco Diagnostica A/S

Taastrupgaardsvej 30

DK-2630 Taastrup

Denmark

Tel: (+45) 43 99 33 77

Fax: (+45) 43 52 73 74

info@rosco.dk

1.4 Emergency telephone number

(+45) 43 99 33 77


Section 2: Hazards Identification

2.1 Classification of the substance or mixture

Flam. Liq. 2. Highly flammable liquid and vapour, this substance is toxic if swallowed, is toxic in contact with skin, is toxic if inhaled, causes damage to organs, causes serious eye irritation and causes respiratory and skin irritation.

2.2 Label elements

Classification according to Regulation (EC) No 1272/2008.

Pictogram	 GHS02: Highly Flammable
Signal Word	Danger
Hazard statement(s)	H225 - H315 - H319 - H335
Precautionary statement(s)	P210 - P261 - P280 - P305 - P351 - P338

Hazard statement(s)

H225

Highly flammable liquid and vapour.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary statement(s)

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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 - P351 - P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

The classification is based on data regarding the individual substances, where possible by bridging principles or adjusted minimum classification.

2.3 Other hazards

May cause drowsiness or dizziness.

Section 3: Composition/Information on Ingredients

Contains: Classification of individual substances.

% w/w	Substance Name	CAS-no.	EC-number	Fareklasse- og kategorikode(r)	Hazard statement(s)
0.015	4-dimethylamino-cinnamaldehyde	6203-18-05	228-267-0	Skin Irrit. 2 Eye Irrit.2 STOT SE3 (solid form)	H315 H319 H335
2.5	Acetid Acid	64-19-7	200-580-7	Skin Irrit. 2 10 % ≤ C < 25 %	H315
0,5	Sodium lauryl sulphate	151-21-3	205-788-1	Skin Irrit. 2 Acute Tox. 4 Eye Irrit. 2 (10 % ≤ C < 20 %) STOT SE 3 Aquatic Chronic 3	H315 H302 H332 H319 H335 H412
60	Ethanol	64-17-5	200-578-6	Flam. Liq. 2	H225

Wording of hazards statements - see section 16.

Section 4: First-Aid Measures

4.1 Description of first aid measures

Inhalation	Move the affected person to fresh air. If symptoms persist, seek medical advice.
Skin contact	Remove contaminated clothing. Wash skin with water and mild soap. If irritation persists, seek medical attention.
Eye contact	Flush with water or physiological salt water for at least 15 minutes, holding eye lids open, remember to remove contact lenses, if any. If irritation persists, seek medical attention.
Ingestion	Rinse mouth and drink plenty of water. In case of discomfort, seek medical attention. Do NOT induce vomiting. Avoid stomach content in lungs.

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Burns IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Make sure clothing is not burnt onto skin.

4.2 Most important symptoms and effects, both acute and delayed

Irritation of lungs, skin, eyes and mucous membranes. The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Contains ethanol, the substance may cause adverse reproductive and fetal effects in humans. Prolonged or frequent inhalation of vapours may result in damage of liver, kidneys, blood and central nervous system.

4.3 Indication of any immediate medical attention and special treatment needed

Show this Safety Data Sheet to a physician or emergency ward.

Section 5: Fire-Fighting Measures

5.1 Extinguishing media

Powder, alcohol-resistant foam, water in large amounts, carbon dioxide or water fog. For fires involving liquids, do not aim the jet straight into the liquid, it can spread the fire.

5.2 Special hazards arising from the substance or mixture.

Do not breathe smoke fumes. In case of fire, the products may form hazardous decomposition such as oxides of carbon.

5.3 Advice for fire-fighters

When entering burning area wear self-contained breathing apparatus. Use water spray to cool fire-exposed containers. Use chemical resistance gloves.

5.4 Other information

No available data.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment – see section 8. Avoid breathing fume/gas/mist/vapours/spray. Ventilate area of leak or spillage. In case of fire: Evacuate area. Remove sources of ignition.

6.2 Environmental precautions

Do not empty into drain – see section 12. Inform appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water. Further handling of spillage – see section 13.

6.4 Reference to other sections

See above

Section 7: Handling and Storage

7.1 Precautions for safe handling

Avoid breathing vapours. Provide efficient ventilation. Avoid contact with skin, eyes and clothing. Change contaminated clothes. Wash hands and contaminated area with water and mild soap after use. There shall be access to water and eye wash fountain.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-closed original container and in a flammable liquid storage area. Keep dry and cool (2-8 C°) and separated from oxidizing agents. Do not store near perchlorates, peroxides or nitric acid. Keep out from the reach of children.

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7.3 Specific end use(s)

Use in laboratory. See section 1.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

	8-hour TWA	15-min STEL
Occupational exposure limits (EH40/2007): Ethanol	1000ppm = 1920 mg/m ³	-
Occupational exposure limits : Acetic Acid	10ppm = 25 mg/m ³	
DNEL/PNEC (Predicted No-Effect Concentration) (ethanol)	No CSR.	

8.2 Exposure controls

Appropriate measures

Appropriate engineering controls: Provide efficient ventilation e.g. by working in a fume cupboard. General practice of industrial hygiene. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Personal Protective Equipment

Respiratory protection:

Normally not necessary if working in fume cupboard. In case of working in not adequate ventilated areas, use an approved mask with a gas filter: A. The filter has a limited lifetime and must be changed. Read the instructions.

Skin protection:

Wear protective gloves of e.g. butyl rubber or nitrile rubber. Breakthrough time: 3 hours.

Eye protection:

Wear tight fitting safety goggles when risk of eye contact.

Environmental exposure controls:

Do not empty into drain.

9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance	Clear, yellow liquid
b) Odour:	Alcohol
c) Odour threshold	No available data
d) pH	No available data
e) Melting point/freezing point (C°)	No available data
f) Initial boiling point and boiling range(C°)	No available data
g) Flash point	13
h) Evaporation rate (water = 1)	No available data
i) Flammability (solid, gas)	No available data
j) Upper/lower flammability or explosive limit (vol-%)	No available data
k) Vapour pressure (mmHg, 20°C)	No available data
l) Vapour density (Water=1)	No available data
m) Relative density (Water=1)	<1
n) Water solubility:	Miscible with water
o) Partition coefficient: n-octanol/water	No available data
p) Auto-ignition temperature(C°)	No available data
q) Decomposition temperature	No available data
r) Viscosity	No available data
s) Explosive properties	No available data
t) Oxidising properties	No available data

9.2 Other information

None relevant

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10: Stability and Reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product.

10.2 Chemical Stability

Stable under the recommended storage conditions (see section 7).

10.3 Possibility of hazardous reactions

Vapours can be ignited by a spark, a hot surface or a glow. Vapours are heavier than air.

10.4 Conditions to avoid

Formation of sparks and glows. Excessive heating and sources of ignition.

10.5 Incompatible materials

May react strongly with oxidizing agents, acids and alkaline substances.

10.6 Hazardous decomposition products

When heated to high temperatures (decomposition) it emits toxic fumes such as oxides of carbon.

11: Toxicological Information

11.1 Information on toxicological effects acute toxicity

Hazard class	Data - Ethanol	Test	Reference
Acute toxicity Inhalation	LC ₅₀ (rat, inhalation) = 20000ppm/10H;	No info	(RTECS, TOXNET) NPIRI 1,44,1974. Solv., 1974.
Dermal	LDLo (rabbit; skin) = 20gm/kg (20000mg/kg)	No info	"Alcohols: Their Chemistry, Properties and Manufacture," Monick, J.A., 1968.
Oral	LD ₅₀ (rat; oral) = 7060mg/kg	No info	TXAPA9 16,718,1970
Eye Irritation	Eye /rabbit, 500 mg, effect severe	No info	(RTECS) AJOPAA 29,1363,1946
Reproductive	Inhalation/rat, 20000 ppm/7H (1-22D pregnant), Reprod.: Other developmental abnormalities.	No info	TJADAB 29(2),48A,1984

Information on likely routes of exposure: lungs, skin and gastrointestinal tract.

Symptoms:

Inhalation	Vapours may cause irritation to the airways. May induce discomfort, nausea, dizziness, headache, lack of concentration and unconsciousness.
Skin	May cause irritation with redness. Degreases skin.
Eyes	May cause irritation with redness, pain and blurred vision.
Ingestion	May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Burning sensation. Headache. Confusion. Dizziness. Unconsciousness.
Chronic effect	Prolonged or frequent exposure to vapours of volatile compounds may result in damage of liver, kidneys, blood and central nervous system. May cause reproductive and fetal effects.

Respiratory or skin sensitisation

Prolonged or repeated exposure may result in skin sensibilisation.

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Germ cell mutagenicity

No available data.

Carcinogenicity

Ethanol is not classifiable as to its potential to cause cancer following occupational exposure. But ingestion of alcoholic beverages are known to cause certain forms of cancer in humans.

Reproductive toxicity

No available data.

STOT-single exposure

Irritation of airways.

STOT-repeated exposure

No available data.

Aspiration hazard

Possible aspiration hazard if swallowed (can enter lungs and cause damage).

Additional information

Prolonged or frequent contact or inhalation can cause eczema and inflammation of the skin and airways.

12: Ecological Information

12.1 Toxicity

Aquatic	Data (Acetic acid)	Test (Media)	Reference
Fish	LC50 (<i>Lepomis macrochirus</i> , 96h) = 75 mg/l (Acetic acid) LC50 (<i>Pimephales promelas</i> , 96h) = 15300 mg/l (Ethanol)	Statisk (FW) No info (FW)	IUCLID IUCLID
Crustacean	LC50 (<i>Daphnia magna</i> , 48h) = 65 mg/l (Acetic acid) EC50 (<i>Daphnia magna</i> , 48h) = 9268 - 14221 mg/l (Ethanol)	No info (FW) No info (FW)	EPA Ecotox IUCLID
Algae	No applicable/available data (Acetic acid & Ethanol)	-	-

12.2 Persistence and degradability

Acetic acid: BOD₅ = 66-76 % of ThOD - thus readily biodegradable.
Ethanol is readily biodegradable.

12.3 Bioaccumulative potential

Acetic acid: Log K_{ow} = -0.17 – No significant bioaccumulation is expected.
Ethanol: Log K_{ow} < 1 – No significant bioaccumulation is expected.

12.4 Mobility in soil

Acetic acid: K_{oc} < 1 – Very large mobility expected in soil.
Ethanol: K_{oc} < 5 – Very large mobility expected in soil.

12.5 Results of PBT and vPvB assessment

Ingredients are not considered PBT/vPvB according to criteria in Annex XIII.

12.6 Other adverse effects

None known

13: Disposal Considerations

13.1 Waste treatment measures

Disposal should be according to local, state or national legislation. Dispose through authority facilities or pass to chemical disposal company.

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EWC Code: 16 05 08
15 02 02 (paper contaminated with product)

14: Transport Information

Not dangerous goods (ADR/RID).

14.1 UN number

1170

14.2 UN proper shipping name

ADR/RID: Ethanol solution

IMDG: Ethanol solution

IATA: Ethanol solution

14.3 Transport hazard class(es)

3

14.4 Packing group

II

14.5 Environmental hazards

None

14.6 Special precautions for user

No special precautions required.

14.7 Transport for bulk according to Annex II of MARPOL and the IBC Code

Not relevant.

15: Regulatory Information

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

This safety data sheet complies with the requirements of Regulation (EU) 1907/2006, amended by 2015/830/EU.

Must not be used by persons under 18 years of age.

The employer shall assess the working conditions and, if there is any risk to the safety or health and any effects on the pregnancy or breastfeeding of workers, take the necessary measures to adjust the working conditions (Directive 92/85/EEC).

15.2 Chemical Safety Assessment

A Chemical Safety Assessment (CSA) is not required.

16: Other Information

CLP Label elements (1272/2008):

Content: Ethanol



GHS02: Highly Flammable

Hazard statements mentioned in section 2 & 3:

H225: Highly flammable liquid and vapour.

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H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P233: Keep container tightly closed.
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P261: Avoid breathing fume/gas/mist/vapours/spray.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
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.

Abbreviations:

CMR = Carcinogenicitet, mutagenicitet og reproduktionstoksicitet
CSR = Chemical Safety Report
EC₅₀ = Effect Concentration 50 %
DNEL = Derived No-Effect Level
FW = Fresh Water
LC₅₀ = Lethal Concentration 50 %
LD₅₀ = Lethal Dose 50 %
PBT = Persistent, Bioaccumulative, Toxic
PNEC = Predicted No-Effect Concentration
TD_{Lo} = Toxic Dose Low
vPvB = very Persistent, very Bioaccumulative

Training Advice

No special training required. However, the user should be well instructed in the execution of the task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

Additional information

The information provided on this Safety Data Sheet is correct to the best of our knowledge. The information given is intended only as a guide for safe handling, storage, processing, transport and disposal and is not to be considered as a warranty or quality specification. The information relates only to the specific product and cannot be used in combination with other products unless specified.