

Safety Data Sheet

according to the European Parliament and Council Regulation (EC) No 1907/2006 (REACH), Article 31, Annex II

Date of issue: 14.05.2015	Date of review:	Page 1 of 23 pages	Version:
Name of the mixture: Reagent for PYR test			

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

1.1 Product identifier

Reagent for PYR test	
Pack Name	Reagent for PYR
Cat. No.	10003379
Reagent for PYR I	1×9 ml

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

The kit serves as the colour forming reagent for detection of pyrrolidonylarylamidase activity.

1.3 Details of the supplier of the safety data sheet

Name of manufacturer:	Erba Lachema s.r.o.
Place of business:	Brno, Karásek 1d, postcode 621 00, CZ
ID no:	26918846
Phone:	+420 517 077 111
E-mail:	msds@erbalachema.com

1.4 Emergency telephone number

Erba Lachema s.r.o.

Phone: +420 517 077 556 (*service only during business hours*)

Toxicological Information Centre (TIS), Na Bojišti 1, 128 01 Prague 2

Phone: +420 224 919 293 or +420 224 915 402 (*service available 24 hours a day*)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Reagent for PYR I

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4	H302
Acute Tox. 4	H312
Acute Tox. 4	H332
Repr. 1B	H360FD

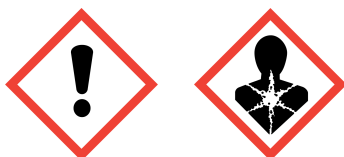
Classification according to 67/548/EEC or 1999/45/EC

Xn	R20/21/22
Repr. Cat. 2	R60-61

For a full text of R-phrases and H-statements see Section 16.

2.2 Label elements

Reagent for PYR I



Pictogram:

Signal word: Danger

Hazard-determining components of labelling:
2-methoxyethanol

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Name of the mixture: Reagent for PYR test

Hazard statement(s):

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H360FD May damage fertility. May damage the unborn child.

Precautionary statement(s):

P201 Obtain special instruction before use.

P280 Wear protective gloves/protective clothing/eye protection.

P308+P313 IF exposed or concerned: Get medical advice.

2.3 Other hazards

Reagent for PYR I is not classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Product is a mixture.

3.2 Mixtures

Reagent for PYR I contains following hazardous substances:

Substance name	Content (% of weight)	CAS number EC number Index number	Classification according to		
			67/548/EEC	1272/2008	
2-methoxyethanol*	35	109-86-4 203-713-7 603-011-00-4	R10 Repr. Cat. 2; R60-61 Xn; R20/21/22	Flam. Liq. 3 Acute Tox. 4 Acute Tox. 4 Acute Tox. 4 Repr. 1B	H226 H302 H312 H332 H360FD

*) Substance with exposure limits (exposure limits are listed in Section 8.1)

For a full text of R-phrases and H-statements see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

When working with the mixture, take care of personal hygiene and prevent contamination of work clothing and skin. If you have any doubts or when symptoms persist, seek medical attention.

Exposure by inhalation

Discontinue the exposure, remove casualty to fresh air, keep at rest and seek medical advice.

Exposure by contact with skin

Take off all contaminated clothing. After contact with skin, wash immediately with soap and water.

Exposure by contact with eyes

Rinse an open eye (hold eyelids with fingers) with plenty of water for about 15 minutes, transfer casualty to a specialist.

Exposure by ingestion

Rinse mouth with water, drink 1/2 l of lukewarm water, seek medical attention immediately, and do NOT induce vomiting!

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4.2 Most important symptoms and effects, both acute and delayed

Irritating effects, headaches, inhalation of vapours may result in a decrease in the activity of the central nervous system and narcosis.

4.3 Indication of any immediate medical attention and special treatment needed

Activated charcoal (20-40 g in 10% slurry)

Laxative: Sodium sulfate (1 tablespoon/ ¼ l water)

SECTION 5: Firefighting measures

The mixture is not flammable. The measure should be adapted to burning substances in the surrounding area.

5.1 Extinguishing media

For the mixture no limitations of extinguishing media are given.

5.2 Special hazards arising from the substance or mixture

Solvent vapours are heavier than air and may spread along floors. Explosive mixtures with air can be formed when the temperature is higher. In case of fire hazardous vapours can be generated and nitrogen oxides can be released.

5.3 Advice for firefighters

No special advice.

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

Isolate and mark the spill site, order all the people out of the place, who do not participate in the rescue work. Remove all possible sources of ignition, turn off vehicle engines, do not smoke and avoid open flames, use non-sparking tools and lamps. Use all recommended personal protective equipment during rescue work.

6.2 Environmental precautions

Do not empty into drains. Risk of explosion.

6.3 Methods and material for containment and cleaning up

Absorb spilled agent with a suitable inert material (sand, earth, vapex) and store contaminated material in containers for collection of hazardous waste. For waste disposal, see Section 13.

6.4 Reference to other sections

See section 7, 8 and 13.

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

Observe the principles of work in laboratory. Observe the normal operating procedures for handling chemical substances and mixtures. Do not eat, drink or smoke. Use personal protective equipment, see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry and covered stores at a temperature between +2 °C and +8 °C.

7.3 Specific end use(s)

The kit is designed for *in vitro* diagnostic devices.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Control parameters of the mixture components according to Government Decree No 361/2007 Coll.

CAS	Substance name	PEL	NPK-P	Note	Conversion factor for ppm
		mg/m ³	mg/m ³		
109-86-4	2-methoxyethanol	3	30	D, P	0.321

*PEL - Permissible exposure limits; NPK-P - the maximum permissible concentration; D - a significant penetration of the substance through the skin or a strong irritating effect on the skin during exposure; S - the substance has a sensitizing effect; P - serious late effects of the substance cannot be excluded; I - causes irritation of mucous membranes (eyes, respiratory system), resp. skin. * - the physico-chemical properties (e.g. explosiveness) are taken into account for NPK-P.*

Exposure limit values in the workplace according to Directive No 2006/15/EC

CAS	Substance name	Limit values				Note
		8 hrs		Short time		
		mg/m ³	ppm	mg/m ³	ppm	
109-86-4	2-methoxyethanol	–	1	–	–	Skin

The note "skin" attached to the exposure limit values in the workplace indicates the possibility of a serious penetration through the skin.

Limit values for indicators of biological exposure tests are not defined for the product according to Decree No 432/2003 Coll.

8.2 Exposure controls

Appropriate engineering controls

Sufficient ventilation.

Personal protective equipment

a. Eye/face protection

Safety goggles.

b. Hand protection

Protective gloves - rubber, resistant to caustic substances.

c. Skin protection

Protective clothing.

d. Respiratory protection

Not required with adequate ventilation, otherwise breathing apparatus.

e. Thermal hazards

Reagent PYR I contains 35% 2-methoxyethanol, which is flammable liquid, category 3.

Environmental exposure controls

To eliminate the emergency conditions, have pre-prepared a decontamination mixture and appropriate collection vessels for reaction residues. Dispose of reaction residues and decontaminated mixtures as hazardous waste water in accordance with relevant legal regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Reagent for PYR I weight

- Appearance Clear yellow liquid
- Odour Ether-like
- Odour threshold Information not available

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d. pH (at 20 °C)	Information not available
e. Melting point/freezing point	Information not available
f. Initial boiling point and boiling range (°C)	Information not available
g. Flash point (°C)	Information not available
h. Evaporation rate	Information not available
i. Flammability (solid, gas)	Information not available
j. Upper/lower flammability or explosive limits	Information not available
k. Vapour pressure (hPa)	Information not available
l. Vapour density	Information not available
m. Relative density (kg m ⁻³)	Information not available
n. Water solubility	Information not available
o. Partition coefficient: n-octanol/water	Information not available
p. Autoignition temperature (°C)	Information not available
q. Decomposition temperature (°C)	Information not available
r. Viscosity	Information not available
s. Explosive properties	Information not available
t. Oxidizing properties	Information not available

9.2 Other information

None.

SECTION 10: Stability and reactivity

Under normal conditions of use and storage the mixture is stable.

10.1 Reactivity

No data available.

10.2 Chemical stability

The mixture is stable at normal temperature and pressure.

10.3 Possibility of hazardous reactions

Generation of dangerous gases or fumes in contact with aluminium, magnesium or bases.

10.4 Conditions to avoid

Heating.

10.5 Incompatible materials

Aluminium, various plastics.

10.6 Hazardous decomposition products

Peroxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

a) Acute toxicity

The mixture is classified as acute toxic (category 4) if swallowed, in contact with skin or if inhaled.

2-methoxyethanol (100 %)

Rat oral LD₅₀ (mg·kg⁻¹)..... 2 370

Rabbit dermal LD₅₀ (mg·kg⁻¹)..... 1 280

Rat inhalation LD₅₀ (mg·l⁻¹)..... 12.4-17.8

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Rat inhalation TLS ($\text{g}\cdot\text{kg}^{-1}$)..... not applicable**b) Irritability**

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

c) Corrosion

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

d) Sensitization

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

e) Repeated dose toxicity

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

f) Carcinogenicity

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

g) Mutagenicity

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

h) Reproductive toxicity

The mixture may damage fertility or the unborn child.

SECTION 12: Ecological information**12.1 Toxicity**

The mixture is not classified as toxic to environmental.

12.2 Persistence and degradability

Easily eliminable.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The product does not have the properties of PBT and vPvB. Assessment based on the ingredients that do not have properties of PBT and vPvB.

12.6 Other adverse effects

There is no information about any special danger for environment.

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

Dispose of in compliance with applicable regulations for hazardous waste management. Do not drain into the wastewater. The mixture should be discarded as a laboratory waste. Incinerate residues of the mixture in a hazardous waste incinerator. Contaminated packaging must be treated as hazardous waste.

Waste code	15 01 10	packaging containing residues of or contaminated by dangerous substances
	16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

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SECTION 14: Transport information

Not governed by regulations for transport of dangerous goods (ADR).

14.1 UN number

Not specified.

14.2 UN proper shipping name

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.3 Transport hazard class(es)

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.4 Packing group

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.5 Environmental hazards

The mixture is not hazardous to the environment during transport.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not transported.

SECTION 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 (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP).

15.2 Chemical safety assessment

Assessment was not carried out.

SECTION 16: Other information**List of H, P-statements and R-phrases**

H-statements: H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H360FD May damage fertility. May damage the unborn child.

P-statements: P201 Obtain special instruction before use.
P280 Wear protective gloves/protective clothing/eye protection.
P308+P313 IF exposed or concerned: Get medical advice.

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R-phrases: R10 Flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R60 May impair fertility.
R61 May cause harm to the unborn child.

Recommended restrictions on use

This compound is designed for professional use. It should not be used for purposes other than those described in Section 1.2.

Information about data sources used to compile the Safety Data Sheet

Material Safety Data Sheets of raw material suppliers, ECHA (European Chemicals Agency), corporate documentation for products

Declaration

The safety data sheet contains basic data corresponding to the present state of our knowledge and experience, in accordance with applicable regulations. The foregoing information was gathered with the utmost care, but that does not mean that it is complete and should be used as the only correct information. Erba Lachema s.r.o. is not responsible for any damages caused by improper use and handling of the mixture.

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Name of the mixture: Reagent for ACETOIN test

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

1.1 Product identifier

Reagent for PYR test	
Pack Name	Reagent for PYR
Cat. No.	10003379
Reagent for PYR II	1×9 ml

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

The kit serves as the colour forming reagent for detection of pyrrolidonylarylamidase activity.

1.3 Details of the supplier of the safety data sheet

Name of manufacturer: Erba Lachema s.r.o.
 Place of business: Brno, Karásek 1d, postcode 621 00, CZ
 ID no: 26918846
 Phone: +420 517 077 111
 E-mail: msds@erbalachema.com

1.4 Emergency telephone number

Erba Lachema s.r.o.

Phone: +420 517 077 556 (*service only during business hours*)

Toxicological Information Centre (TIS), Na Bojišti 1, 128 01 Prague 2

Phone: +420 224 919 293 or +420 224 915 402 (*service available 24 hours a day*)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Reagent for PYR II

Classification according to Regulation (EC) No 1272/2008

Mixture is not classified as hazardous.

Classification according to 67/548/EEC or 1999/45/EC

Mixture is not classified as dangerous.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives.

2.3 Other hazards

Mixture or components are not classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

The product is a mixture.

3.2 Mixtures

Reagent for PYR II contains following hazardous substances:

Substance name	Content (% of weight)	CAS number EC number Index number	Classification according to		
			67/548/EEC	1272/2008	
Acetic acid 90–100 %	2	64-19-7	R10	Flam. Liq. 3	H226

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		200-580-7 607-002-00-6	C; R35	Skin Corr. 1A	H314
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*) Substance with exposure limits (exposure limits are listed in Section 8.1)
For a full text of R-phrases and H-statements see Section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

No special measures required.

Exposure by inhalation

Discontinue the exposure.

Exposure by contact with skin

After contact with skin, wash thoroughly with soap and water.

Exposure by contact with eyes

Rinse an open eye (hold eyelids with fingers) with plenty of water for about 15 minutes.

Exposure by ingestion

Rinse mouth and drink 1/2 l of lukewarm water.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

The mixture is not flammable. The measure should be adapted to burning substances in the surrounding area.

5.1 Extinguishing media

For the mixture no limitations of extinguishing media are given.

5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for firefighters

No special advice.

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

Use personal protective equipment, see Section 8. Observe the principles of work safety in chemical laboratories. Do not eat, drink or smoke.

6.2 Environmental precautions

Due to amount of chemical substances in a mixture, an impact on the environment is not expected.

6.3 Methods and material for containment and cleaning up

Absorb spilled agent with a suitable inert material (sand, earth, vapex) and store contaminated material in containers for collection of hazardous waste. For waste disposal, see Section 13.

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Name of the mixture: Reagent for ACETOIN test

6.4 Reference to other sections

See section 7, 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Observe the principles of work in laboratory. Observe the normal operating procedures for handling chemical substances and mixtures. Do not eat, drink or smoke. Use personal protective equipment, see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry and covered stores at a temperature between +2 °C and +8 °C.

7.3 Specific end use(s)

The kit is designed for *in vitro* diagnostic devices.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Control parameters of the mixture components according to Government Decree No 361/2007 Coll.

CAS	Substance name	PEL	NPK-P	Note	Conversion factor for ppm
		mg/m ³	mg/m ³		
64-19-7	Acetic acid	25	35	I	0.408

PEL - Permissible exposure limits; NPK-P - the maximum permissible concentration; D - a significant penetration of the substance through the skin or a strong irritating effect on the skin during exposure; S - the substance has a sensitizing effect; P - serious late effects of the substance cannot be excluded; I - causes irritation of mucous membranes (eyes, respiratory system), resp. skin. * - the physico-chemical properties (e.g. explosiveness) are taken into account for NPK-P.

Exposure limit values in the workplace according to Directive No 2006/15/EC.

CAS	Substance name	Limit values				Note
		8 hrs		Short time		
		mg/m ³	ppm	mg/m ³	ppm	
64-19-7	Acetic acid	25	10	-	-	-

Limit values for indicators of biological exposure tests are not defined for the product according to Decree No 432/2003 Coll.

8.2 Exposure controls

Appropriate engineering controls

Sufficient ventilation.

Personal protective equipment

a. Eye/face protection

Not required.

b. Hand protection

Not required.

c. Skin protection

Not required.

d. Respiratory protection

Not required.

e. Thermal hazards

None known.

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Environmental exposure controls

To eliminate the emergency conditions, have pre-prepared a decontamination mixture and appropriate collection vessels for reaction residues. Dispose of reaction residues and decontaminated mixtures as hazardous waste water in accordance with relevant legal regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Reagent for PYR I

- | | |
|---|---------------------------|
| a. Appearance | Clear colourless liquid |
| b. Odour | Information not available |
| c. Odour threshold | Information not available |
| d. pH (at 20 °C) | Information not available |
| e. Melting point/freezing point | Information not available |
| f. Initial boiling point and boiling range (°C) | Information not available |
| g. Flash point (°C) | Information not available |
| h. Evaporation rate..... | Information not available |
| i. Flammability (solid, gas)..... | Information not available |
| j. Upper/lower flammability or explosive limits..... | Information not available |
| k. Vapour pressure (hPa) | Information not available |
| l. Vapour density..... | Information not available |
| m. Relative density (kg m ⁻³) | Information not available |
| n. Water solubility | Information not available |
| o. Partition coefficient: n-octanol/water | Information not available |
| p. Autoignition temperature (°C)..... | Information not available |
| q. Decomposition temperature (°C)..... | Information not available |
| r. Viscosity | Information not available |
| s. Explosive properties | Information not available |
| t. Oxidizing properties | Information not available |

9.2 Other information

None.

SECTION 10: Stability and reactivity

Under normal conditions of use and storage the mixture is stable.

10.1 Reactivity

No data available.

10.2 Chemical stability

The mixture is stable at normal temperature and pressure.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

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10.6 Hazardous decomposition products

No dangerous decomposition products known.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****a) Acute toxicity**

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

b) Irritability

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

c) Corrosion

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

d) Sensitization

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

e) Repeated dose toxicity

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

f) Carcinogenicity

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

g) Mutagenicity

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

h) Reproductive toxicity

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

SECTION 12: Ecological information**12.1 Toxicity**

The mixture is not classified as toxic to environmental.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The product does not have the properties of PBT and vPvB. Assessment based on the ingredients that do not have properties of PBT and vPvB.

12.6 Other adverse effects

There is no information about any special danger for environment.

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

Dispose of in compliance with applicable regulations for hazardous waste management. Do not drain into the wastewater. The mixture should be discarded as a laboratory waste. Incinerate residues of the mixture in a hazardous waste incinerator. Contaminated packaging must be treated as hazardous waste.

SECTION 14: Transport information

Not governed by regulations for transport of dangerous goods (ADR).

14.1 UN number

Not specified.

14.2 UN proper shipping name

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.3 Transport hazard class(es)

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.4 Packing group

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.5 Environmental hazards

The mixture is not hazardous to the environment during transport.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not transported.

SECTION 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 (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP).

15.2 Chemical safety assessment

Assessment was not carried out.

SECTION 16: Other information**List of H, P-statements and R-phrases**

H-statements: H225 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.

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Name of the mixture: Reagent for ACETOIN test

R-phrases: R10 Flammable.
 R34 Causes burns.

Recommended restrictions on use

This compound is designed for professional use. It should not be used for purposes other than those described in Section 1.2.

Information about data sources used to compile the Safety Data Sheet

Material Safety Data Sheets of raw material suppliers, ECHA (European Chemicals Agency), corporate documentation for products

Declaration

The safety data sheet contains basic data corresponding to the present state of our knowledge and experience, in accordance with applicable regulations. The foregoing information was gathered with the utmost care, but that does not mean that it is complete and should be used as the only correct information. Erba Lachema s.r.o. is not responsible for any damages caused by improper use and handling of the mixture.

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

1.1 Product identifier

Reagent for PYR test	
Pack Name	Reagent for PYR
Cat. No.	10003379
Reagent for PYR	1×dropping bottle

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

The kit serves as the colour forming reagent for detection of pyrrolidonylarylamidase activity.

1.3 Details of the supplier of the safety data sheet

Name of manufacturer: Erba Lachema s.r.o.
 Place of business: Brno, Karásek 1d, postcode 621 00, CZ
 ID no: 26918846
 Phone: +420 517 077 111
 E-mail: msds@erbalachema.com

1.4 Emergency telephone number

Erba Lachema s.r.o.

Phone: +420 517 077 556 (*service only during business hours*)

Toxicological Information Centre (TIS), Na Bojišti 1, 128 01 Prague 2

Phone: +420 224 919 293 or +420 224 915 402 (*service available 24 hours a day*)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Reagent for PYR

Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H302

Acute Tox. 4 H312

Acute Tox. 4 H332

Repr. 1B H360FD

Classification according to 67/548/EEC or 1999/45/EC

Xn R20/21/22

Repr. Cat. 2 R60-61

For a full text of R-phrases and H-statements see Section 16.

2.2 Label elements

Reagent for PYR



Pictogram:

Signal word: Danger

Hazard-determining components of labelling:

2-methoxyethanol

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Hazard statement(s):

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H360FD May damage fertility. May damage the unborn child.

Precautionary statement(s):

P201 Obtain special instruction before use.

P280 Wear protective gloves/protective clothing/eye protection.

P308+P313 IF exposed or concerned: Get medical advice.

2.3 Other hazards

Reagent PYR is not classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

The product is a mixture.

3.2 Mixtures

Reagent for PYR contains following hazardous substances:

Substance name	Content (% of weight)	CAS number EC number Index number	Classification according to		
			67/548/EEC	1272/2008	
2-methoxyethanol*	<17	109-86-4 203-713-7 603-011-00-4	R10 Repr. Cat. 2; R60-61 Xn; R20/21/22	Flam. Liq. 3 Acute Tox. 4 Acute Tox. 4 Acute Tox. 4 Repr. 1B	H226 H302 H312 H332 H361FD
Acetic acid 90-100 %	1	64-19-7 200-580-7 607-002-00-6	R10 C; R35	Flam. Liq. 3 Skin Corr. 1A	H226 H314

*) Substance with exposure limits (exposure limits are listed in Section 8.1)

For a full text of R-phrases and H-statements see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

When working with the mixture, take care of personal hygiene and prevent contamination of work clothing and skin. If you have any doubts or when symptoms persist, seek medical attention.

Exposure by inhalation

Discontinue the exposure, remove casualty to fresh air, keep at rest and seek medical advice.

Exposure by contact with skin

Take off all contaminated clothing. After contact with skin, wash immediately with soap and water.

Exposure by contact with eyes

Rinse an open eye (hold eyelids with fingers) with plenty of water for about 15 minutes, transfer casualty to a specialist.

Exposure by ingestion

Rinse mouth. Drink 1/2 l of lukewarm water, Seek medical attention immediately. Do NOT induce vomiting!

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4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

The mixture is not flammable. The measure should be adapted to burning substances in the surrounding area.

5.1 Extinguishing media

For the mixture no limitations of extinguishing media are given.

5.2 Special hazards arising from the substance or mixture

When burning, reagent may generate dangerous gases.

5.3 Advice for firefighters

Prevent extinguishing media from entering drains. Wear protective clothing.

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

Isolate and mark the spill site, order all the people out of the place, who do not participate in the rescue work. Remove all possible sources of ignition, turn off vehicle engines, do not smoke and avoid open flames, use non-sparking tools and lamps. Use all recommended personal protective equipment during rescue work.

6.2 Environmental precautions

Due to amount of chemical substances in a mixture, an impact on the environment is not expected.

6.3 Methods and material for containment and cleaning up

Absorb spilled agent with a suitable inert material (sand, earth, vapex) and store contaminated material in containers for collection of hazardous waste. For waste disposal, see Section 13.

See section 7, 8 and 13.

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

Observe the principles of work in laboratory. Observe the normal operating procedures for handling chemical substances and mixtures. Do not eat, drink or smoke. Use personal protective equipment, see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Store prepared Reagent for PYR in the dark at a temperature between +2 °C and +8 °C.

7.3 Specific end use(s)

The kit is designed for *in vitro* diagnostic devices.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Control parameters of the mixture components according to Government Decree No 361/2007 Coll.

CAS	Substance name	PEL	NPK-P	Note	Conversion factor for ppm
		mg/m ³	mg/m ³		
109-86-4	2-methoxyethanol	3	30	D, P	0.321
64-19-7	Acetic acid	25	35	I	0.408

*PEL - Permissible exposure limits; NPK-P - the maximum permissible concentration; D - a significant penetration of the substance through the skin or a strong irritating effect on the skin during exposure; S - the substance has a sensitizing effect; P - serious late effects of the substance cannot be excluded; I - causes irritation of mucous membranes (eyes, respiratory system), resp. skin. * - the physico-chemical properties (e.g. explosiveness) are taken into account for NPK-P.*

Exposure limit values in the workplace according to Directive No 2006/15/EC.

CAS	Substance name	Limit values				Note
		8 hrs		Short time		
		mg/m ³	ppm	mg/m ³	ppm	
109-86-4	2-methoxyethanol	–	1	–	–	Skin
64-19-7	Acetic acid	25	10	–	–	–

Limit values for indicators of biological exposure tests are not defined for the product according to Decree No 432/2003 Coll.

8.2 Exposure controls

Appropriate engineering controls

Sufficient ventilation.

Personal protective equipment

a. Eye/face protection

Safety goggles.

b. Hand protection

Protective gloves - rubber, resistant to caustic substances.

c. Skin protection

Protective clothing.

d. Respiratory protection

Not required with adequate ventilation.

e. Thermal hazards

2 None known.

Environmental exposure controls

To eliminate the emergency conditions, have pre-prepared a decontamination mixture and appropriate collection vessels for reaction residues. Dispose of reaction residues and decontaminated mixtures as hazardous waste water in accordance with relevant legal regulations.

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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Reagent for PYR I**

- a. Appearance Clear yellow liquid
- b. Odour Ether-like
- c. Odour threshold Information not available
- d. pH (at 20 °C) Information not available
- e. Melting point/freezing point Information not available
- f. Initial boiling point and boiling range (°C) Information not available
- g. Flash point (°C) Information not available
- h. Evaporation rate Information not available
- i. Flammability (solid, gas) Information not available
- j. Upper/lower flammability or explosive limits Information not available
- k. Vapour pressure (hPa) Information not available
- l. Vapour density Information not available
- m. Relative density (kg m⁻³) Information not available
- n. Water solubility Information not available
- o. Partition coefficient: n-octanol/water Information not available
- p. Autoignition temperature (°C) Information not available
- q. Decomposition temperature (°C) Information not available
- r. Viscosity Information not available
- s. Explosive properties Information not available
- t. Oxidizing properties Information not available

9.2 Other information

None.

SECTION 10: Stability and reactivity

Under normal conditions of use and storage the mixture is stable. Suspension may occur, which cause no harm.

10.1 Reactivity

No data available.

10.2 Chemical stability

The mixture is stable at normal temperature and pressure.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

No dangerous decomposition products known.

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SECTION 11: Toxicological information**11.1 Information on toxicological effects****a) Acute toxicity**

The mixture is classified as acute toxic (category 4) if swallowed, in contact with skin or if inhaled.

2-methoxyethanol (100 %)

Rat oral LD₅₀ (mg·kg⁻¹)..... 2 370

Rabbit dermal LD₅₀ (mg·kg⁻¹)..... 1 280

Rat inhalation LD₅₀ (mg·l⁻¹)..... 12.4-17.8

Rat inhalation TLS (g·kg⁻¹)..... not applicable

b) Irritability

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

c) Corrosion

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

d) Sensitization

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

e) Repeated dose toxicity

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

f) Carcinogenicity

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

g) Mutagenicity

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

h) Reproductive toxicity

The mixture may damage fertility or the unborn child.

SECTION 12: Ecological information**12.1 Toxicity**

The mixture is not classified as toxic to environmental.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

The product does not have the properties of PBT and vPvB. Assessment based on the ingredients that do not have properties of PBT and vPvB.

12.6 Other adverse effects

There is no information about any special danger for environment.

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

Dispose of in compliance with applicable regulations for hazardous waste management. Do not drain into the wastewater. The mixture should be discarded as a laboratory waste. Incinerate residues of the mixture in a hazardous waste incinerator. Contaminated packaging must be treated as hazardous waste.

Waste code 15 01 10 Packaging containing residues of or contaminated by dangerous substances
16 05 06 Laboratory chemicals, consisting of or containing dangerous substances,
including mixtures of laboratory chemicals

SECTION 14: Transport information

Not governed by regulations for transport of dangerous goods (ADR).

14.1 UN number

Not specified.

14.2 UN proper shipping name

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.3 Transport hazard class(es)

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.4 Packing group

ADR/RID: –

IMDG: –

ICAO/IATA: –

14.5 Environmental hazards

The mixture is not hazardous to the environment during transport.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not transported.

SECTION 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 (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP).

15.2 Chemical safety assessment

Assessment was not carried out.

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SECTION 16: Other information**List of H, P-statements and R-phrases**

H-statements: H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H360FD May damage fertility. May damage the unborn child.

P-statements: P201 Obtain special instruction before use.
P280 Wear protective gloves/protective clothing/eye protection.
P308+P313 IF exposed or concerned: Get medical advice.

R-phrases: R10 Flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R60 May impair fertility.
R61 May cause harm to the unborn child.

Recommended restrictions on use

This compound is designed for professional use. It should not be used for purposes other than those described in Section 1.2.

Information about data sources used to compile the Safety Data Sheet

Material Safety Data Sheets of raw material suppliers, ECHA (European Chemicals Agency), corporate documentation for products.

Declaration

The safety data sheet contains basic data corresponding to the present state of our knowledge and experience, in accordance with applicable regulations. The foregoing information was gathered with the utmost care, but that does not mean that it is complete and should be used as the only correct information. Erba Lachema s.r.o. is not responsible for any damages caused by improper use and handling of the mixture.