

Material Safety Data Sheet

According to Regulation (EC). No. 1907/2006/EC + amendment 453/2010/EC

Version 02

Revision 18.10.2012

Printing date 18.10.2012

Useable for:

BA E-4100	Adrenaline Plasma ELISA	High Sensitive
BA E-4200	Noradrenaline Plasma ELISA	High Sensitive
BA E-4300	Dopamine Plasma ELISA	High Sensitive
BA E-4500	2-CAT Plasma ELISA	High Sensitive
BA E-4600	3-CAT Plasma ELISA	High Sensitive
BA E-5100	Adrenaline Research ELISA™	
BA E-5200	Noradrenaline Research ELISA™	
BA E-5300	Dopamine Research ELISA™	
BA E-5400	2-CAT (A-N) Research ELISA™	
BA E-5500	2-CAT (N-D) Research ELISA™	
BA E-5600	3-CAT Research ELISA™	
BA E-6100	Adrenaline ELISA	Fast Track
BA E-6200	Noradrenaline ELISA	Fast Track
BA E-6300	Dopamine ELISA	Fast Track
BA E-6500	2-CAT ELISA	Fast Track
BA E-6600	3-CAT ELISA	Fast Track

Single components with dangerous ingredients:

REF: BA R-6612 Acylation Reagent ACYL-REAG

Not listed single components contains no hazardous substances in concentrations to be declared, a labelling is not required.

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

- **Product identifier**
- **Trade name:** **Acylation Reagent** ACYL-REAG
- **Article number:** BA R-6612
- **Application of the substance / the preparation:** laboratory reagent / Immunoassay
The product is intended for professional use.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Labor Diagnostika Nord GmbH & Co. KG
Am Eichenhain 1
48531 Nordhorn, Germany
Phone +49 5921 8197 100
Fax +49 5921 8197 106
E-mail support@ldn.de

2 Hazards identification

• Classification of the substance or mixture



GHS02 flame

H225 Highly flammable liquid and vapour.



GHS08 health hazard

H360 May damage fertility or the unborn child.



GHS07

H319 Causes serious eye irritation.

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



T; Toxic

R61: May cause harm to the unborn child.



Xn; Harmful

R20/21: Harmful by inhalation and in contact with skin.



Xi; Irritant

R36: Irritating to eyes.



F; Highly flammable

R11: Highly flammable.

• Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

• Information concerning particular hazards for human and environment:

No special remarkable hazards. Please observe the informations given in this safety data sheet

• Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

• Label elements

• GHS label elements

The product is classified and labelled according to the Globally Harmonized System (GHS).

• Hazard pictograms GHS02, GHS07, GHS08

• Signal word Danger

• Hazard-determining components of labelling: N,N-dimethylformamide

• Hazard statements Highly flammable liquid and vapour. Causes serious eye irritation. May damage fertility or the unborn child.

Trade name: Acylation Reagent

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Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting/equipment.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Results of PBT and vPvB assessment






PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures Preparation

Description: Mixture consisting of the following components.

68-12-2	N,N-dimethylformamide		T Repr. Cat. 2 R61		Xn R20/21;		Xi R36	25-50%
			H360;		H312; H332; H319			

Additional information

For the wording of the listed risk phrases refer to section 16.

4 First aid measures

Description of first aid measures

General information

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact

Generally the product does not irritate the skin.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

 If symptoms persist consult doctor.

Information for doctor

Most important symptoms and effects, both acute and delayed

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

Extinguishing media

Suitable extinguishing agents CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents

Water.

Water with full jet.

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters

Protective equipment: Mount respiratory protective device.

Trade name: Acylation Reagent

Material Safety Data Sheet

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Version 02

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Prevent seepage into sewage system, workpits and cellars.

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

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

- **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.

7 Handling and storage

- **Handling**

- **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

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

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

- **Specific end use(s)**

No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately. Avoid contact with the eyes.

Avoid contact with the eyes and skin..

Trade name: Acylation Reagent

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· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.



· **Material of gloves**

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.

The quality of the protective gloves must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles.



· **Body protection:** lab coat

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:**

liquid

· **Colour:**

According to product specification characteristic

· **Odour:**

Not determined

· **Odour threshold:**

Not determined

· **pH-value at 20°C:**

Not determined

· **Change in condition**

· **Melting point/Melting range:**

undetermined

· **Boiling point/Boiling range:**

78°C

· **Flash point:**

13°C

· **Flammability (solid, gaseous)**

Not applicable

· **Ignition temperature:**

425°C

· **Decomposition temperature:**

Not determined

· **Self-igniting:**

Product is not self-igniting.

· **Danger of explosion:**

Not determined

· **Explosion limits (lower, upper):**

2,2 Vol % , 16,0 Vol %

· **Vapour pressure:**

59 hPa

· **Density at 20°C:**

0,87 g/cm³

· **Relative density**

Not determined

· **Vapour density**

Not determined

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Version 02

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· Evaporation rate	Not determined
· Solubility in / Miscibility with Water:	Fully miscible
· Segregation coefficient (n-octanol/water):	Not determined
· Viscosity:	Not determined
· dynamic:	Not determined
· kinematic:	Not determined
· Solvent content:	
· Organic solvents:	100 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

Information on toxicological effects

- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**
68-12-2 N,N-dimethylformamide

Oral	LD50	7600 mg/kg (rat)
Dermal	LD50	5000 mg/kg (rbt)
Inhalative	LC50/4 h	9400 mg/l (mus)
- **Primary irritant effect:**
- **on the skin:** No irritant effect known.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
Harmful
Irritant

Trade name: Acylation Reagent

Material Safety Data Sheet

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Version 02

Revision 18.10.2012

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must be specially treated adhering to official regulations.
- **Uncleaned packaging:**
- **Recommendation:**
Dispose of packaging according to applicable local, state, and federal regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- **UN-Number** -
- **UN proper shipping name** -
- **Transport hazard class(es)** -
- **Packing group** -
- **IMDG** II
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information** Not dangerous according to the above specifications. This product is part of a kit. Information in this section refers to the kit as a whole.
- **ADR**
- **Remarks:** No dangerous good in sense of this transport regulation.
- **ADN**
- **Remarks:** No dangerous good in sense of this transport regulation.
- **IMDG**
- **Remarks:** No dangerous good in sense of this transport regulation.
- **IATA**
- **Remarks:** No dangerous good in sense of this transport regulation.

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15 Regulatory information

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

- **GHS label elements** The product is classified and labelled according to the Globally Harmonized System (GHS).

- **Hazard pictograms** GHS02, GHS07, GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:** N,N-dimethylformamide

- **Hazard statements**

Highly flammable liquid and vapour.

Causes serious eye irritation.

May damage fertility or the unborn child.

- **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use explosion-proof electrical/ventilating/lighting/equipment.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations**

Class	Share in %
NK	50-100

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship

- **Relevant phrases**

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H360 May damage fertility or the unborn child.

R20/21 Harmful by inhalation and in contact with skin.

R36 Irritating to eyes.

R61 May cause harm to the unborn child.

- **Department issuing MSDS:** Safety Representative

- **Contact:** LDN

- **Abbreviations and acronyms:**

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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