

Universal Battery Pack (UBP) cpl.

Version 1.0

Revision Date 20.05.2014

Print Date 21.05.2014

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

1.1 Product identifier

Commercial Product Name : Universal Battery Pack (UBP) cpl.
Mat.-No./ Genisys-No. : 06869904001

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

Recommended restrictions : For professional users only.
on use

1.3 Details of the supplier of the safety data sheet

Company : Roche Diagnostics Deutschland GmbH
-
Sandhoferstrasse 116
68305 Mannheim
E-mail address : mannheim.umweltschutz@roche.com
Telephone : +496217590
Telefax : +496217592890
Responsible Department : +49(0)621-759-2012+49(0)621-759-4848+49(0)8856-60-2629

1.4 Emergency telephone number

In case of emergencies: : Central Works Security +49(0)621-759-2203
Roche Diagnostics GmbH
Centre for detoxification: : Mainz +49(0)6131-19240
Munich +49(0)89-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture., The batteries described in this Product Safety Data Sheet are sealed units which are not hazardous when used according to the recommendations of the manufacturer. Under normal conditions of use, the electrode materials and electrolyte they contain are not exposed to the outside, provided the battery integrity is maintained and seals remain intact.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
dimethyl carbonate	616-38-6 210-478-4	F; R11	Flam. Liq.2; H225	<= 100
ethylene carbonate	96-49-1 202-510-0	Xi; Xi; R41	Eye Dam.1; H318	<= 100
ethyl acetate	141-78-6 205-500-4	F; R11 Xi; R36 R66 R67	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336	<= 100
cobalt lithium dioxide	12190-79-3 235-362-0	Xn; R42/43	Skin Sens.1A; H317	<= 100
Graphite	7782-42-5 231-955-3	Xi; Xi; R36/38	Eye Irrit.2; H319 STOT SE3; H335	<= 100
lithium hexafluorophosphate(1-)	21324-40-3 244-334-7	C; R34	Skin Corr.1B; H314	<= 100

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Do not leave the victim unattended.
- If inhaled : Move to fresh air.
 If unconscious place in recovery position and seek medical advice.
 If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
 Remove contact lenses.
 Protect unharmed eye.
 If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
 Rinse mouth with water.

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4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : No information available.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Pick up and arrange disposal without creating dust.
Sweep up and shovel.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

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Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Advice on common storage : No materials to be especially mentioned.

Storage class (TRGS 510) : 13, Non Combustible Solids

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethyl acetate	141-78-6	AGW	400 ppm 1.500 mg/m ³	DE TRGS 900
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
Graphite	7782-42-5	AGW (Inhalable fraction)	10 mg/m ³	DE TRGS 900
Further information	General dust value. For this substance no specific occupational exposure limit value is established, since the AGS does not yet have information regarding unspecific action on the respiratory organs in excess of the normal values.			
Graphite	7782-42-5	AGW (Alveolate fraction)	3 mg/m ³	DE TRGS 900
Further information	General dust value. For this substance no specific occupational exposure limit value is established, since the AGS does not yet have information regarding unspecific action on the respiratory organs in excess of the normal values.			
lithium hexafluorophosphate(1-)	21324-40-3	AGW (Inhalable fraction)	1 mg/m ³ (Fluorine)	DE TRGS 900
Further information	Senate commission for the review of compounds at the work place dangerous			



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	for the health (MAK-commission)., Skin absorption, When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
lithium hexafluorophosphate(1-)	21324-40-3	TWA	2,5 mg/m3	2000/39/EC
Further information	Indicative			

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Protective suit

Respiratory protection : No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : solid
- Colour : No data available
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : No data available
- Flash point : does not flash
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Vapour pressure : No data available
- Relative vapour density : No data available

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Relative density	: No data available
Density	: No data available
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No hazards to be specially mentioned.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

dimethyl carbonate:

Acute oral toxicity : LD50 Oral (rat): 13.000 mg/kg

Acute dermal toxicity : LD50 Dermal (rabbit): > 5.000 mg/kg

ethylene carbonate:

Acute oral toxicity : LD50 Oral (rat): > 5.000 mg/kg

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Acute dermal toxicity : LD50 Dermal (rabbit): > 2.001 mg/kg

ethyl acetate:

Acute oral toxicity : LD50 (rat): 5.620 mg/kg

LD50 (mouse): 4.100 mg/kg

Acute inhalation toxicity : LC50 (rat): 1600 ppm
Exposure time: 8 h

LC50 (rat): 200 mg/l

Acute dermal toxicity : LD50 (rabbit): > 18.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

ethylene carbonate:

Remarks: May cause skin irritation in susceptible persons.

ethyl acetate:

Remarks: May cause skin irritation in susceptible persons.

cobalt lithium dioxide:

Remarks: May cause eye and skin irritation.

Graphite:

Remarks: May cause skin irritation in susceptible persons.

lithium hexafluorophosphate(1-):

Result: Causes burns.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

ethylene carbonate:

Result: Risk of serious damage to eyes.

Remarks: May cause irreversible eye damage.

ethyl acetate:

Remarks: May cause irreversible eye damage.

cobalt lithium dioxide:

Remarks: Product dust may be irritating to eyes, skin and respiratory system.

Graphite:

Result: Irritating to eyes.

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

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Components:

cobalt lithium dioxide:

Result: The product is a skin sensitiser, sub-category 1A.

Remarks: Causes sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

ethylene carbonate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

ethyl acetate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Graphite:

Target Organs: Respiratory system

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

ethylene carbonate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

ethyl acetate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Graphite:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

ethylene carbonate:

No data available

ethyl acetate:

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No data available

Graphite:

No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

ethylene carbonate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1.000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to bacteria : EC50 (Pseudomonas putida): > 10.000 mg/l
Exposure time: 17 h

Ecotoxicology Assessment
Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

ethyl acetate:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 270 mg/l
LC50 (Oncorhynchus mykiss (rainbow trout)): 450 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 700 mg/l
Exposure time: 48 h

Toxicity to algae : EC0 (Scenedesmus quadricauda (Green algae)): 15 mg/l
Exposure time: 168 h

Toxicity to bacteria : EC0 (Pseudomonas putida): 650 mg/l
Exposure time: 16 h

Ecotoxicology Assessment
Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

cobalt lithium dioxide:

Ecotoxicology Assessment

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Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

Graphite:

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

12.2 Persistence and degradability

Components:

ethyl acetate:

Biodegradability : Biodegradation: 93,8 %
Exposure time: 28 d
Method: OECD Test Guideline 301

12.3 Bioaccumulative potential

Components:

ethylene carbonate:

Partition coefficient: n-octanol/water : log Pow: -0,34

ethyl acetate:

Partition coefficient: n-octanol/water : log Pow: 0,66

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Components:

ethylene carbonate:

Adsorbed organic bound halogens (AOX) : Remarks: not applicable



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Additional ecological information : No data available

Graphite:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product has to be disposed of as laboratory chemical in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADR : 3480
IMDG : 3480
IATA : 3480

14.2 Proper shipping name

ADR : Lithium ion batteries
IMDG : Lithium ion batteries
IATA : Lithium ion batteries

14.3 Transport hazard class

ADR : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADR
Packaging group : II
Classification Code : M4
Labels : 9
Tunnel restriction code : E
IMDG
Packaging group : II
Labels : 9
IATA_C
Packing instruction (cargo aircraft) : 965
Packaging group : II
Labels : 9
IATA_P
Packing instruction : 965



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(passenger aircraft)
Packaging group : II
Labels : 9

14.5 Environmental hazards

ADR
Environmentally hazardous : no

IMDG
Marine pollutant : no

IATA
Environmentally hazardous : no

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

Remarks : not applicable

SECTION 15: Regulatory information

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

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances
not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
not applicable

Water contaminating class : WGK 3 highly water endangering
(Germany)

TA Luft List (Germany) : Total dust: not applicable
: Inorganic substances in powdered form, Class 2, 100 %
: Inorganic substances in vapour or gaseous form: not applicable
: Organic Substances, Class 1, 100 %
: Carcinogenic substances: not applicable
: Mutagenic: not applicable
: Toxic to reproduction: not applicable

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of R-Phrases

R11 : Highly flammable.
R34 : Causes burns.
R36 : Irritating to eyes.

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according to Regulation (EC) No. 1907/2006



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- R36/38 : Irritating to eyes and skin.
- R41 : Risk of serious damage to eyes.
- R42/43 : May cause sensitisation by inhalation and skin contact.
- R66 : Repeated exposure may cause skin dryness or cracking.
- R67 : Vapours may cause drowsiness and dizziness.

Full text of H-Statements

- H225 : Highly flammable liquid and vapour.
- H314 : Causes severe skin burns and eye damage.
- H317 : May cause an allergic skin reaction.
- H318 : Causes serious eye damage.
- H319 : Causes serious eye irritation.
- H335 : May cause respiratory irritation.
- H336 : May cause drowsiness or dizziness.

Full text of other abbreviations

- Eye Dam. : Serious eye damage
- Eye Irrit. : Eye irritation
- Flam. Liq. : Flammable liquids
- Skin Corr. : Skin corrosion
- Skin Sens. : Skin sensitisation
- STOT SE : Specific target organ toxicity - single exposure

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.