

**Safety Data Sheet**

according to UK REACH Regulation

**MDP**

Revision date: 16.06.2022

Product code: 7160

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

MDP

**Further trade names**

Phosphonic acid, methylenebis

**Synonyms:**

Phosphonic acid, methylenedi-; Medronic acid; Methanebisphosphonic acid; Methanediphosphonic acid; Methylene-1,1-bisphosphonic acid; Methylenebis[phosphonic acid]; Methylenediphosphonic acid; Methylene diphosphonate

CAS No: 1984-15-2

EC No: 217-851-0

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Ligand for labelling with 99mTc

**1.3. Details of the supplier of the safety data sheet**

Company name:	ABX advanced biochemical compounds	
	Biomedizinische Forschungsreagenzien GmbH	
Street:	Heinrich-Gläser-Straße 10-14	
Place:	01454 Radeberg	
Telephone:	+49 3528 4041 60	Telefax: +49 3528 4041 65
e-mail:	info@abx.de	
Contact person:	Dr. Christoph Meyer	Telephone: +49 3528 4041 8732
e-mail:	meyer@abx.de	
Internet:	http://www.abx.de	

**1.4. Emergency telephone number:**

+49 3528 4041 60

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Met. Corr. 1; H290

Skin Corr. 1B; H314

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Signal word:** Danger**Pictograms:****Hazard statements**

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

**Precautionary statements**

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P310 Immediately call a POISON CENTER/doctor.

P234 Keep only in original packaging.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**SECTION 3: Composition/information on ingredients****3.1. Substances****Chemical characterization**

Phosphonic acid, methylenebis

Sum formula: CH<sub>6</sub>O<sub>6</sub>P<sub>2</sub>

Molecular weight: 176.00

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
1984-15-2	MDP			95 - < 100 %
	217-851-0			
	Met. Corr. 1, Skin Corr. 1B; H290 H314			

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

After contact with skin, wash immediately with: Water. Change contaminated clothing.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

If swallowed, immediately drink: Water. Call a physician immediately.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**Co-ordinate fire-fighting measures to the fire surroundings. Suitable extinguishing media: Foam. Extinguishing powder. Carbon dioxide (CO<sub>2</sub>). Atomized water.**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

**SECTION 6: Accidental release measures**

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**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****Other information**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

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

Do not breathe dust. Conditions to avoid: skin contact. Eye contact. Wear personal protection equipment.  
When using do not eat, drink, smoke, sniff.

**Advice on general occupational hygiene**

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container dry. Keep container tightly closed.

**Further information on storage conditions**

Recommended storage temperature:

of °C: 2

up to °C: 8

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Protect against:  
Light.

Store under (Gas): argon. Nitrogen.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

**8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: solid  
Colour: colourless

**Changes in the physical state**

Melting point/freezing point: 201 - 207 °C

Water solubility: The study does not need to be conducted  
because the substance is known to be  
insoluble in water.

**Solubility in other solvents**

dimethylsulphoxide (DMSO).

**SECTION 10: Stability and reactivity****10.4. Conditions to avoid**

Light.

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**10.6. Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Phosphorus compounds.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 12: Ecological information****12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**List of Wastes Code - residues/unused products**

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Non-contaminated packages may be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 3261  
**14.2. UN proper shipping name:** ätzender, saurer, organischer, fester Stoff, n.a.g. (Medronic acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 3261  
**14.2. UN proper shipping name:** corrosive solid, acidic, organic, n.o.s. (Medronic acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III

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**Marine transport (IMDG)**

<b><u>14.1. UN number or ID number:</u></b>	UN 3261
<b><u>14.2. UN proper shipping name:</u></b>	corrosive solid, acidic, organic, n.o.s. (Medronic acid)
<b><u>14.3. Transport hazard class(es):</u></b>	8
<b><u>14.4. Packing group:</u></b>	III
Marine pollutant:	no

**Air transport (ICAO-TI/IATA-DGR)**

<b><u>14.1. UN number or ID number:</u></b>	UN 3261
<b><u>14.2. UN proper shipping name:</u></b>	corrosive solid, acidic, organic, n.o.s. (Medronic acid)
<b><u>14.3. Transport hazard class(es):</u></b>	8
<b><u>14.4. Packing group:</u></b>	III

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water hazard class (D): 3 - highly hazardous to water

**SECTION 16: Other information****Relevant H and EUH statements (number and full text)**

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.