

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BERMOCOLL E 230 X

Version 2 Revision Date 16.06.2011 Print Date 17.06.2011

GB / EN

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name : BERMOCOLL E 230 X

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

Use of the Substance/Mixture : Specific use(s): Rheological modification
Water retention and stability

1.3 Details of the supplier of the safety data sheet

Company : Akzo Nobel Functional Chemicals AB
SE 444 85 Stenungsund
Sweden

Telephone : +4630385000

Telefax :

E-mail address : Regulatory.AffairsSE@akzonobel.com

1.4 Emergency telephone number

Emergency telephone number : +31 570679211 (Fax. +31 570679801)
Akzo Nobel Chemicals, Deventer, NL
China: 0532 83889090

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Risk advice to man and the environment

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Labelling according to EC Directives (1999/45/EC)

Further information : The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards

Risk of dust explosion.

PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Remarks : No dangerous ingredients according to Directive 67/548/EEC.

Candidate List of Substances of Very High Concern for Authorisation

Candidate List of Substances : This product does not contain substances of very high of Very High Concern for Authorisation concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Non-hazardous substance

| Chemical Name | CAS-No. EC-No. REACH No. | Concentration [%] |
|-----------------------------|--------------------------------|-------------------|
| Ethylhydroxyethyl cellulose | 9004-58-4 | 80 - 100 |

4. FIRST AID MEASURES

4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : Remove to fresh air.
Keep patient warm and at rest.
Rinse nose and mouth with water.
- In case of skin contact : Remove contaminated clothing.
Rinse with water.
- In case of eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

5. FIRE-FIGHTING 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 fire fighting / Specific hazards arising from the chemical : Do not allow run-off from fire fighting to enter drains or water courses.
Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.
No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up / Methods for containment : Sweep up and shovel.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Additional advice : For personal protection see section 8.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Avoid creating dust.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Avoid spillage on floor as the product can become very slippery when wet.

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

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

No sparking tools should be used.

Dust explosion class : St1

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in a dry place.
Store at room temperature in the original container.
Keep container tightly closed.

Advice on common storage : No special restrictions on storage with other products.

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

7.3 Specific end uses

Specific use(s) : No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

| Components | CAS-No. | Value | Control parameters | Update | Basis | Form of exposure |
|------------|---------|-------|---------------------|------------|---------|------------------|
| Dust | | TWA | 4 mg/m ³ | 1997-01-01 | GB EH40 | Total dust |

STEL: Short term exposure limit

TWA: Time Weighted Average (TWA)

8.2 Exposure controls

Engineering Controls

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
In the case of dust or aerosol formation use respirator with an approved filter.
Half mask with a particle filter P2 (EN 143).

Hand protection : For prolonged or repeated contact use protective gloves.
Protective gloves complying with EN 374.

Eye protection : Safety glasses

Hygiene measures : General industrial hygiene practice.

Environmental exposure controls

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

General advice : Try to prevent the material from entering drains or water courses.
No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form : powder

Colour : Whitish.

Odour : odourless

Odour Threshold : no data available

Safety data

pH : 5.5 - 8 at 0.5 % solution

Melting point/range : no data available

Boiling point/boiling range : not applicable

Flash point : not applicable

Ignition temperature : 420 °C

Evaporation rate : not applicable

Flammability (solid, gas) : no data available

Lower explosion limit : 30 g/m³

Upper explosion limit : no data available

Vapour pressure : not applicable

Relative vapour density : not applicable

Relative density : no data available

Solubility in other solvents : no data available

Water solubility : Soluble, gel formation.

Partition coefficient: n-octanol/water : no data available

Autoignition temperature : 120 °C

Decomposition temperature : > 100 °C
Avoid elevated temperatures. At temperatures above ~100 °C the product will slowly decompose and dissolving qualities are impaired. At temperatures above 200 °C charring of the product will occur.

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

| | |
|-------------------------|--|
| Viscosity, dynamic | : 260 - 360 mPa.s at 20 °C pH 7 at 2 % solution. |
| Viscosity, kinematic | : no data available |
| Explosive properties | : no data available |
| Minimum ignition energy | : > 10 mJ |
| Oxidizing properties | : The substance or mixture is not classified as oxidizing. |

9.2 Other information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

| | |
|---|--|
| Chemical stability and Hazardous reactions | : Dust may form explosive mixture in air. |
|---|--|

10.4 Conditions to avoid

| | |
|---------------------|---|
| Conditions to avoid | : Keep away from open flames, hot surfaces and sources of ignition. |
|---------------------|---|

10.5 Incompatible materials

| | |
|--------------------|---------------|
| Materials to avoid | : None known. |
|--------------------|---------------|

10.6 Hazardous decomposition products

| | |
|-------------------------------------|--|
| Hazardous decomposition products | : No hazardous decomposition products are known. |
| Thermal decomposition | : > 100 °C Avoid elevated temperatures. At temperatures above ~100 °C the product will slowly decompose and dissolving qualities are impaired. At temperatures above 200 °C charring of the product will occur. |

11. TOXICOLOGICAL INFORMATION

Product information:

Hazard Summary

| | |
|------------|--|
| Inhalation | : Product dust may be irritating to eyes, skin and respiratory system. |
| Skin | : Product dust may be irritating to eyes, skin and respiratory |

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

system.

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

Ingestion : Not irritating.

Toxicology Assessment

Further information : No further data available.

11.1 Information on toxicological effects

Test result

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: rat
The value is estimated from tests on similar products.

12. ECOLOGICAL INFORMATION

Product information:

Ecotoxicology Assessment

Results of PBT assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Additional ecological information : None known.

12.1 Toxicity

Test result

Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 h
Species: *Oncorhynchus mykiss* (rainbow trout)
The value is estimated from tests on similar products.

Toxicity to daphnia and other aquatic invertebrates. : EC50: > 100 mg/l
Exposure time: 48 h
Species: *Daphnia magna* (Water flea)
The value is estimated from tests on similar products.

12.2 Persistence and degradability

Product information:

Biodegradability : Not readily biodegradable.

12.3 Bioaccumulative potential

Product information:

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Product information:

Mobility : no data available

12.5 Results of PBT and vPvB assessment

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

Product information:

PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product information:

Biochemical Oxygen Demand (BOD) : no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Contaminated packaging : Empty remaining contents.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

14.1 UN number

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

14.2 Proper shipping name

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

14.3 Transport hazard class

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

14.4 Packing group

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

14.5 Environmental hazards

ADR : Not dangerous goods
RID : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

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

BERMOCOLL E 230 X

Version 2

Revision Date 16.06.2011

Print Date 17.06.2011

GB / EN

15. REGULATORY INFORMATION

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

Major Accident Hazard Legislation : 96/82/EC Update: 2003
Directive 96/82/EC does not apply

Water contaminating class (Germany) : WGK 1 slightly water endangering

Notification status

CH INV : y (positive listing)
The mixture contains a polymer. The monomers for this polymer have been notified.

US.TSCA : y (positive listing)
All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

DSL : y (positive listing)
All components of this product are on the Canadian DSL list.

AICS : y (positive listing)
On the inventory, or in compliance with the inventory

NZIoC : n (Negative listing)
Not in compliance with the inventory

ENCS : y (positive listing)
On the inventory, or in compliance with the inventory

ISHL : y (positive listing)
On the inventory, or in compliance with the inventory

KECI : y (positive listing)
On the inventory, or in compliance with the inventory

PICCS : y (positive listing)
On the inventory, or in compliance with the inventory

IECSC : y (positive listing)
On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

Further information

This product is to be considered as a substance according to EU-legislation.

15.2 Chemical Safety Assessment

BERMOCOLL E 230 X : not required

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Explanations for possible abbreviations mentioned in section 2

PBT : PBT: Persistent, bioaccumulative and toxic.

vPvB : vPvB: Very persistent and very bioaccumulative.

OEL : OEL: Occupational exposure limit.

Notification status explanation

| | |
|---------|--|
| CH INV | Switzerland. New notified substances and declared preparations |
| US.TSCA | United States TSCA Inventory |
| DSL | Canadian Domestic Substances List (DSL) |
| AICS | Australia Inventory of Chemical Substances (AICS) |
| NZIoC | New Zealand. Inventory of Chemical Substances |
| ENCS | Japan. ENCS - Existing and New Chemical Substances Inventory |
| ISHL | Japan. ISHL - Inventory of Chemical Substances (METI) |
| KECI | Korea. Korean Existing Chemicals Inventory (KECI) |
| PICCS | Philippines Inventory of Chemicals and Chemical Substances (PICCS) |
| IECSC | China. Inventory of Existing Chemical Substances in China (IECSC) |

Further information

AkzoNobel, Tomorrow's Answers Today are trademarks of the AkzoNobel N.V. For more information on our brands and products please visit: www.akzonobel.com/brands_products

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.
