

SAFETY DATA SHEET

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Version: 1.3

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_DE

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

Trade name : Klucel™ M, Art.-Nr.: 2440 200

™ Trademark, Ashland or its subsidiaries, registered in various countries

Substance name HYDROXYPROPYLCELLULOSE

Substance No.

EC-No. 618-388-0

CAS-No. 9004-64-2

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

Recommended use : Rheology modifier

1.3 Details of the supplier of the safety data sheet

Deffner & Johann GmbH
 Mühlackerstr. 13
 DE-97520 Röthlein
 Germany

info@deffner-johann.de

1.4 Emergency telephone number

+49-9723-9350-0, Mo-Fr 08:00-15:00, or contact your local emergency telephone number at 112

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.



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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Precautionary statements : **Prevention:**

Keep dust/air mixtures away from ignition sources.

2.3 Other hazards

Additional advice

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Description : Hydroxypropylcellulose

Chemical nature : organic

Hazardous components

No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : No hazards which require special first aid measures.

If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

In case of eye contact : Remove contact lenses.

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Protect unharmed eye.

If swallowed : Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Organic dusts at sufficient concentration can form explosive mixtures in air.
 Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Standard procedure for chemical fires.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.
 Avoid breathing dust.
 Material can create slippery conditions.
 Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
 Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid dust formation.
 Ensure all equipment is electrically grounded and bonded before beginning transfer operations.
 The material can accumulate static charge and can therefore cause electrical ignition of flammable atmospheres.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.

Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge.
 Provide appropriate exhaust ventilation at places where dust is formed.



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Hygiene measures : Avoid breathing dust.

Dust explosion class : St1

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking.

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

Storage class (TRGS 510) : 11, Combustible Solids

Other data : Keep in a dry place. No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Provide appropriate exhaust ventilation at places where dust is formed.

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Eye protection : Safety glasses

Hand protection
Material : butyl-rubber

Skin and body protection : Wear as appropriate:
Safety shoes

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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 : granules, powder

Colour : off-white

Odour : odourless

Odour Threshold : No data available

pH : 5,0 - 8,5
Concentration: 2 %
(as aqueous solution)

Softening point : 100 - 150 °C

Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : 30 g/m³

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : > 1 g/cm³

Bulk density : 360 - 550 kg/m³

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Solubility(ies)
 Water solubility : Insoluble > 45 °C

Solubility in other solvents : No data available

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

Auto-ignition temperature : 420 °C

Decomposition temperature : No data available

Viscosity
 Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

9.2 Other information

Dust deflagration index (Kst) : < 200 m.b_/s

Dust explosion class : St1

Minimum ignition energy : > 3 mJ

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.



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10.5 Incompatible materials

10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury., Product dust may be irritating to eyes, skin and respiratory system.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

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.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information

Product:

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Remarks: No data available

SECTION 12: Ecological information**12.1 Toxicity**

No data available

12.2 Persistence and degradability**Product:**

Biodegradability : Result: Not readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects**Product:**

Additional ecological information : No data available

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

Contaminated packaging : Empty remaining contents.

SECTION 14: Transport information**SECTION 14: Transport information****14.1 UN number**

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ADN: Not dangerous goods**ADR:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods**RID:** Not dangerous goods**14.2 UN proper shipping name****ADN:** Not dangerous goods**ADR:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods**RID:** Not dangerous goods**14.3 Transport hazard class(es)****ADN:** Not dangerous goods**ADR:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods**RID:** Not dangerous goods**14.4 Packing group****ADN:** Not dangerous goods**ADR:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods**RID:** Not dangerous goods**14.5 Environmental hazards****ADN:** Not applicable**ADR:** Not applicable**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not applicable**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not applicable**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not applicable**RID:** Not applicable**14.6 Special precautions for user**

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Not applicable

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

Ship Type: Not applicable
 Hazard code(s): Not applicable
 Pollutant Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

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

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : 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 (Germany) : WGK 1 slightly water endangering

TA Luft List (Germany) : Total dust, Not applicable
 : Inorganic substances in powdered form, Not applicable
 : Inorganic substances in vapour or gaseous form, Not applicable

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- : Organic Substances, Not applicable
- : Carcinogenic substances, Not applicable
- : Mutagenic, Not applicable
- : Toxic to reproduction, Not applicable

The components of this product are reported in the following inventories:

- DSL : All components of this product are on the Canadian DSL
- AICS On the inventory, or in compliance with the inventory
- ENCS On the inventory, or in compliance with the inventory
- KECI On the inventory, or in compliance with the inventory
- PICCS On the inventory, or in compliance with the inventory
- IECSC On the inventory, or in compliance with the inventory
- TSCA On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information**Further information**

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Full text of H-Statements

Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (+31 10 497 5000).

Sources of key data used to compile the Safety Data Sheet
 Ashland internal data including own and sponsored test reports
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists
 BEI : Biological Exposure Index
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
 FG : Food grade
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
 H-statement : Hazard Statement
 IATA : International Air Transport Association.
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement

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PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

GAM : Water Hazard Class for the Netherlands
 ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine
 CLP : Classification, Labelling and Packaging
 CSA : Chemical Safety Assessment
 CSR : Chemical Safety Report
 DNEL : Derived No Effect Level.
 EINECS : European Inventory of Existing Commercial Chemical Substances.
 ELINCS : European List of Notified Chemical Substances
 GV: Exposure limits (DK)
 PEC : Predicted Effect Concentration
 PEL : Permissible Exposure Limits
 PNEC : Predicted No Effect Concentration
 REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
 RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
 WGK : German Water Hazard Class