

## 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™ E, Art.-Nr.:2440010

™ 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.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Description : Hydroxypropylcellulose

Chemical nature : organic

### Hazardous components

No hazardous ingredients

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## 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

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## 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.

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**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/m<sup>3</sup>

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : > 1 g/cm<sup>3</sup>

Bulk density : 360 - 550 kg/m<sup>3</sup>

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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