According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

KHS Filling and Packaging – Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015 1 | 13

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

1.1 Product identifier

Product name: Innocoll KS 1799

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

Identified uses: Adhesive for industrial and trade use

Uses advised against: No usage which is apart from.

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier KHS GmbH Juchostr. 20

44143 Dortmund www.khs.com Germany

Telephone: +49 (0)231 / 569-10000 Fax: +49 (0)231 / 569-410300

Contact Person: Service Products

E-Mail: service.products@khs.com

1.4 Emergency telephone

number

+49(0)30 19240 (24h-emergency call)

SECTION 2: Hazards identification

2.1 Classification of the substance

or mixture

The product has not been classified as hazardous and does not need to be labelled according to regulation (EU) no 1272/2008 (CLP).

2.2 Label elements not applicable

Hazard statements: none

Precautionary statements:

Supplemental label elements: The product may not be released into the environment without control.

By handling of chemical products no particular hazard is known when normal precautions (item 7) and personal protective equipment (item 8)

are kept.

2.3 Other hazards

Filling and Packaging - Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 2 | 13 01.06.2015 date of issue:

SECTION 3: Composition/information	on	ingredients
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3.1 Chemical characterization

General information: Adhesive based on casein.

3.2 hazardous components

Identifier	Concentration *	classification CLP
REACH: 215-540-4	< 8,5%	H360FD May damage fertility. May damage the unborn child
CAS: 1303-96-4		H319 Causes serious eye irritation
REACH: 57-467-0	0,1< C <1%	H400 Very toxic to aquatic life
CAS: 51839-25-9		H411 Toxic to aquatic life with long lasting effects
	REACH: 215-540-4 CAS: 1303-96-4 REACH: 57-467-0	REACH: 215-540-4 < 8,5% CAS: 1303-96-4 REACH: 57-467-0 0,1< C < 1%

All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

PBT: persistent, bioaccumulative and toxic substance. vPvB: very persistent and very bioaccumulative substance.

SECTION 4	l: First aid	measures
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General: Take care of personal protection!

4.1 Description of first aid measures

Inhalation: Supply fresh air. Consult a doctor in case of complaints.

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

Innocoll KS 1799



date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015 3 | 13

Eye contact: Rinse opened eye for several minutes under running water. In case

of irritation, seek medical attention.

Skin Contact: Rinse contaminated skin with plenty of water. Remove

contaminated clothing and shoes. In case of irritation, seek medical

attention.

Ingestion: Rinse mouth thoroughly with water. If the mixture is swallowed,

keep the exposed person conscious, drink plenty of water. Do not

induce vomiting.

4.2 Most important symptoms and effects, both acute and

delayed

no data available.

4.3 Indication of any immediate medical attention and special

treatment needed

Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide- (CO2), Foam-, Fire extinguishing powder, water.

Suitable fire extinguishing method for surroundings.

Unsuitable extinguishing medi unknown

Special hazards arising from the substance or mixture

Do not inhale combustion and explosion gases! Hazardous

decomposition products: Carbon dioxide

all persons from the affected area. Pay attention to self-protection!

Special fire fighting

procedures:

no data available.

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

KHS Filling and Packaging – Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015 4 | 13

SECTION 6: Accidental release	measure
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6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, evacuate the affected area. Wear personal protective equipment.

6.2 Environmental precautions

Close leakage. Do not allow substance to enter drains or body of water without dilution.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (sand, kieselguhr, acid binders, and universal binders). Treat the absorbed material in accordance with the information in the section dealing with disposal.

6.4 Reference to other sections

| | Section 01 Contact information in case of an emergency Section 07 Handling and storage

Section 08 appropriate personal protective equipment

Section 13 Disposal considerations

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear suitable protective equipment (see Section 8). In the working areas, do not eat, drink or smoke. Wash your hands after handling. Before entering areas where food is eaten, remove contaminated clothing and protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Keep the original container in a cool well-ventilated place. Protect from direct sunlight and frost.

7.3 Specific end use(s) no data available.

Storage Class: no data available.

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

KHS Filling and Packaging – Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015 5 | 13

SECTION 8: Exposure controls/personal protection

8.1 Control parametersNone of the components have assigned exposure limits.

Occupational Exposure Limits

8.2 Exposure controlsNo information about exposure limits available.

8.2.1 Appropriate engineering

controls:

No special ventilation requirements. Provide at workplace washing

facilities.

8.2.2 Individual protection measures, such as personal protective equipment

General information: Wash hands before breaks and after work. Use personal protective

equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. The usual precautionary measures should be adhered to inhandling the

chemicals or the mineral oil products.

Eye/face protection: safety glasses (EN 166) recommended during refilling.

.

Hand Protection:

Protective gloves
The glove material has to be impermeable and resistant to the product / the

substance / the preparation. Due to missing tests, no legally binding

recommendation to the glove material for the product can be dispensed. Selection of the glove material on consideration of the penetration time, permeation and

degradation.

Protective gloves material

Gloves made of PVC or PE (based on practice experience). Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer. The product is a preparation of several substances, the resistance of glove materials cannot be predicted and must

therefore be checked before use. Penetration time of glove material

The exact penetration time has to be requested from the protective glove

manufacturer and must be observed.

Other: no data available.

Respiratory Protection: not required

Thermal hazards: no data available.

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

Innocoll KS 1799



date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015 6 | 13

Hygiene measures: Always observe good personal hygiene measures, such as washing

after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants.

Discard contaminated footwear that cannot be cleaned.

Environmental Controls: no data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: liquid

Form:

colour: yellowish

odor: Product specific odor threshold: Not applicable

pH: $7,9 \pm 0,5$

boiling Point: Not applicable

flash point: >100°C flash point: >100°C

evaporation Rate: Value not relevant for classification.

flammability (solid, gas): non-flammable

flammability limit - Upper (%)—: Value not relevant for classification.
flammability Limit - Lower (%)—: Value not relevant for classification.
vapor pressure: Value not relevant for classification.
vapor density (air=1): Value not relevant for classification.

density: $1,02 \pm 0,03 \text{ g/cm}3$

solubility(ies)

solubility in Water: unlimited in water

solubility (other): Value not relevant for classification.

partition coefficient (n-

octanol/water):

autoignition Temperature:

autoignition Temperature: >300°C

decomposition Temperature: Value not relevant for classification.

kinematic viscosity: $75.000 \pm 15.000 \text{ mPas}$

explosive properties: none oxidizing properties: none

9.2 other information no data available.

Filling and Packaging – Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 7 | 13 date of issue:

SECTION 10:stability and reactivity

10.1 reactivity Stable under normal use conditions.

10.2 chemical stability Stable under normal use conditions.

10.3 possibility of hazardous

reactions

Avoid contact with strong acids, strong oxidizing agents.

10.4 conditions to avoid Frost, storage at temperatures> 40 ° C

10.5 incompatible materials no data available.

10.6 hazardous decomposition

products

Endothermic decomposition with formation of ammonia.

SECTION 11:toxicological information

11.1 information on likely routes of exposure

Acute toxicity

Oral No specific Data available.

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

No specific Data available. **Dermal**

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

Inhalation No specific Data available.

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

skin corrosion/irritation: No specific Data available.

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

serious eye damage/eye irritation No specific Data available.

product:

product:

Filling and Packaging — Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 8 | 13 date of issue: 01.06.2015

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

respiratory or skin sensitization: No specific Data available.

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

germ cell mutagenicity No specific effects or critical hazards known

product:

in vitro

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

in vivo

specific substances

Di-Natriumtetraborat-Decahydrat Zinc Hydroxide Carbonate

no data available. no data available.

carcinogenicity No specific effects or critical hazards known

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available Zinc Hydroxide Carbonate no data available.

reproductive toxicity No specific effects or critical hazards known

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

specific target organ toxicity -

single exposure

No specific effects or critical hazards known

product:

specific substances

no data available. Di-Natriumtetraborat-Decahydrat Zinc Hydroxide Carbonate no data available.

specific target organ toxicity -

repeated exposure

No specific effects or critical hazards known

product:

specific substances

Filling and Packaging — Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 9 | 13 01.06.2015 date of issue:

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

aspiration hazard No specific effects or critical hazards known

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

other adverse effects:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

fish product: No specific effects or critical hazards known

specific substances

Di-Natriumtetraborat-Decahydrat no data available Zinc Hydroxide Carbonate no data available

aquatic invertebrates product: No specific effects or critical hazards known

specific substances

no data available Di-Natriumtetraborat-Decahydrat Zinc Hydroxide Carbonate no data available

chronic toxicity product:

fish product: No specific effects or critical hazards known

specific substances

no data available. Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate

aquatic invertebrates product: No specific effects or critical hazards known

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

Filling and Packaging – Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 10 | 13 01.06.2015 date of issue:

specific substances

Zinc Hydroxide Carbonate no data available. Di-Natriumtetraborat-Decahydrat no data available.

12.2 Persistence and Degradability No specific effects or critical hazards known

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

12.3 Bioaccumulative potential No specific effects or critical hazards known

product:

specific substances

no data available. Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate

12.4 mobility in soil No specific effects or critical hazards known

product:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

12.5 results of PBT and vPvB No specific effects or critical hazards known

assessment:

specific substances

Di-Natriumtetraborat-Decahydrat no data available. Zinc Hydroxide Carbonate no data available.

12.6 other adverse effects No specific effects or critical hazards known

specific substances

no data available. Di-Natriumtetraborat-Decahydrat Zinc Hydroxide Carbonate no data available.

water hazard class (WGK): WGK 1: slightly water-endangering.

SECTION 13: disposal considerations

13.1 waste treatment methods

general information: The generation of waste should be avoided or minimized

wherever possible. Empty containers or liners may retain

some product residues.

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

Innocoll KS 1799



11 | 13

date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015

disposal methods: This material and its container must be disposed of in a safe

manner (Waste Directive 2008/98 / EC, and national and regional regulations). A licensed waste disposal company should dispose of residues and non-recyclable products.

Disposal of this product, solutions and any by-products should

at all times be carried out in compliance with the

environmental protection requirements, waste disposal legislation, and the requirements of local authorities.

Abfallrichtlinie 2008/98/EG (Germany)

SECTION 14: transport information

ADR/RID

14.1 UN number:

14.2 UN proper

shipping name:

14.3 transport hazard class(es)

non-dangerous goods

class label(s)

hazard no. (ADR):

tunnel restriction code:

14.4 packing group:

14.5 environmental hazards:

14.6 special precautions for user:

ADN

14.1 UN number:

14.2 UN proper

shipping name:

14.3 transport hazard class(es)

non-dangerous goods

class

14.4 packing group:

14.5 environmental hazards:

14.6 special precautions for user:

IMDG

14.1 UN number:

14.2 UN proper

shipping name:

14.3 transport hazard class(es)

non-dangerous goods

class

14.4 packing group:

14.5 environmental hazards:

14.6 special precautions for user:

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended

KHS Filling and Packaging – Worldwide

Innocoll KS 1799

date of version: 18.07.2018 V 2.2 date of issue: 01.06.2015 12 | 13

IATA

14.1 UN number: 14.2 UN proper shipping name:

14.3 transport hazard class(es)

non-dangerous goods

class

14.4 packing group:

14.5 environmental hazards:14.6 special precautions for user:

SECTION 15: regulatory information

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

EU Regulations regulation 1272/2008/EG (CLP/GHS)

supplement 790/2009/EG supplement 286/2011/EG supplement 487/2013/EG supplement 944/2013/EG

regulation 1907/2006/EG (REACH)

FDA CFR 175.105

Regulation (EC) No. 2037/2000

Substances that deplete the ozone

layer:

Regulation (EC) No. 850/2004 on

persistent organic pollutants:

none

none

national regulations

water hazard class (WGK): WGK 1: slightly water-endangering.

15.2 chemical safety assessment: No Chemical Safety Assessment has been carried out.

Innocoll KS 1799

date of version:

18.07.2018 V 2.2 13 | 13 date of issue:

SECTION 16: other information

revision Information: Vertical lines in the margin indicate an amendment.

in section 2 and 3

wording of the H-statements H360FD May damage fertility. May damage the unborn child

Filling and Packaging – Worldwide

H319 Causes serious eye irritation

H400 Very toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

other information: The classification is in line with current EC lists. It is expanded, however, by

> information from technical literature and by information furnished by supplier companies. The classification results from the Conventional

Method mentioned in regulation EU 1272/2008 (CLP).

revision date: 18.07.2018

correcting formatting error in chapter 6.4

disclaimer: The data contained in this safety data sheet are based on our current

> knowledge and experience and are given to the best of our knowledge and belief. It characterizes the product only with regard to safety requirements

> for handling, transport and disposal. The data do not describe the product's properties (tech. product specification). Neither should any agreed property nor the suitability of the product for any specific technical application be deduced from the data contained in this safety data sheet. Modifications on this document are not allowed. The data are not

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