

Safety data sheet

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BASF Safety data sheet according to UN GHS 4th rev.

Date / Revised: 08.02.2016

Product: **Kolliphor® CSS**

Version: 2.0

(ID no. 30554486/SDS_GEN_00/EN)

Date of print 16.02.2017

1. Identification

Product identifier

Kolliphor® CSS

Chemical name: Alcohol sulfate mono-C16-18, sodium salt

CAS Number: 68955-20-4

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

Relevant identified uses: emulsifier

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Nutrition and Health

Telephone: +49 621 60-48434

E-mail address: EN-global-safety-data@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

| Flam. Sol. 2

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Acute Tox. 5 (oral)
 Skin Corr./Irrit. 2
 Eye Dam./Irrit. 1
 STOT SE 3 (irritating to respiratory system)
 Aquatic Acute 2
 Aquatic Chronic 3

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements

Globally Harmonized System (GHS)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H228	Flammable solid.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H303	May be harmful if swallowed.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H401	Toxic to aquatic life.

Precautionary Statements (Prevention):

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye/face protection.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P240	Ground/bond container and receiving equipment.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

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P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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Other hazardsAccording to UN GHS criteria

The product is under certain conditions capable of dust explosion.

3. Composition/Information on Ingredients**Substances**Chemical nature

Sulfuric acid, mono-C16-18-alkyl esters, sodium salts
CAS Number: 68955-20-4
EC-Number: 273-258-7

Ph. Eur.: Sodium Cetostearyl Sulphate

For the classifications not written out in full in this section the full text can be found in section 16.

Mixtures

Not applicable

4. First-Aid Measures

Description of first aid measures

If adverse health effects develop seek medical attention. Change contaminated clothing and shoes.

If inhaled:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water. If irritation develops, seek medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth and then drink 200-300 ml of water. Seek medical attention if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

carbon dioxide, foam, dry powder, water spray

Special hazards arising from the substance or mixture

Burning produces harmful and toxic fumes.

Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

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Avoid contact with skin and eyes. Avoid dust formation. Sources of ignition should be kept well clear.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For large amounts: Sweep/shovel up.

For residues: Pick up with suitable appliance and dispose of.

Dispose of absorbed material in accordance with regulations. Cleaning operations should be carried out only while wearing breathing apparatus.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling

Avoid contact with the skin, eyes and clothing. Wear suitable protective clothing and eye/face protection. Avoid raising dust. Provide exhaust ventilation if dust is formed. Avoid inhalation of dusts. Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame. Avoid whirling up the material/product because of the danger of dust explosion.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), Polypropylene (PP), High density polyethylene (HDPE), Paper/Fibreboard

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with occupational exposure limits

No occupational exposure limits known.

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Exposure controls

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

Hand protection:

Wear chemical resistant protective gloves.

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): nitrile rubber (NBR) - 0.4 mm coating thickness

Eye protection:

Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts. Handle in accordance with good industrial hygiene and safety practice. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	powder
Colour:	white
Odour:	odourless
Odour threshold:	not applicable, odour not perceivable
pH value:	7,5 - 9,0 (water, 20 °C)
Melting point:	> 150 °C (1.013 hPa)
Boiling point:	not applicable
Flash point:	190 °C
Evaporation rate:	The product is a non-volatile solid.
Flammability:	Highly flammable.
Lower explosion limit:	For solids not relevant for classification and labelling.

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Upper explosion limit: For solids not relevant for classification and labelling.

Ignition temperature: not determined

Relative vapour density (air): The product is a non-volatile solid.

Solubility in water: soluble, clear

Solubility (qualitative) solvent(s): distilled water
soluble

Partitioning coefficient n-octanol/water (log Kow): -0,44 (OECD Guideline 107)
(20 °C; pH value: approx. 9,8)

Self ignition: not self-igniting

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic: not applicable, the product is a solid

Explosion hazard: Product is not explosive, however a dust explosion could result from an air / dust mixture.

Fire promoting properties: not fire-propagating

Other information

Minimum ignition energy: 9 - 14 mJ

Bulk density: 150 - 250 g/l (DGF-H-II 1b)

Hygroscopy: Non-hygroscopic

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Dust explosion hazard.

Conditions to avoid

Avoid dust formation. Avoid electro-static charge.

Incompatible materials

Substances to avoid:
strong oxidizing agents

Hazardous decomposition products

:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Experimental/calculated data:

LD50 rat (oral): > 2.000 mg/kg (Directive 84/449/EEC, B.1)

LD50 rat (dermal): > 2.000 mg/kg (OECD Guideline 402)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Irritation

Assessment of irritating effects:

Skin contact causes irritation. May cause severe damage to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

Serious eye damage/irritation rabbit: irreversible damage (OECD Guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Guinea pig maximization test guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

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Assessment of carcinogenicity:

In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Adaptive effects were observed after repeated exposure in animal studies. Repeated oral exposure to large quantities may affect certain organs.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Toxicity

Toxicity to fish:

LC50 > 1 - 10 mg/l, Brachydanio rerio (DIN EN ISO 7346-2)

Aquatic invertebrates:

EC50 (48 h) > 10 - 100 mg/l, Daphnia magna (static)

The ecological data given are those of the active ingredient. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic plants:

EC50 (72 h) > 10 - 100 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)

EC10 (72 h) > 10 - 100 mg/l (biomass), Scenedesmus subspicatus (DIN 38412 Part 9, static)

Microorganisms/Effect on activated sludge:

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EC0 > 10 - 100 mg/l, Pseudomonas putida (OECD Guideline 209)

EC0 > 100 mg/l, Pseudomonas putida (DIN 38412 Part 8)

Chronic toxicity to aquatic invertebrates:

No observed effect concentration > 0,1 - 1 mg/l, Ceriodaphnia dubia

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration. The ecological data given are those of the active ingredient.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Readily biodegradable (according to OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is possible.

Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

13. Disposal Considerations

Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

14. Transport Information

Land transport

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ADR

UN number: UN1325
UN proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (contains ALCOHOL SULFATE C16/C18, SODIUM SALT)
Transport hazard class(es): 4.1
Packing group: III
Environmental hazards: no
Special precautions for user: Tunnel code: E

RID

UN number: UN1325
UN proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (contains ALCOHOL SULFATE C16/C18, SODIUM SALT)
Transport hazard class(es): 4.1
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Inland waterway transport**ADN**

UN number: UN1325
UN proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (contains ALCOHOL SULFATE C16/C18, SODIUM SALT)
Transport hazard class(es): 4.1
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

Sea transport**IMDG**

UN number: UN 1325
UN proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (contains ALCOHOL SULFATE C16/C18, SODIUM SALT)
Transport hazard class(es): 4.1
Packing group: III
Environmental hazards: no
Marine pollutant: NO

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Special precautions for user: None known

Air transport

IATA/ICAO

UN number: UN 1325
UN proper shipping name: FLAMMABLE SOLID, ORGANIC, N.O.S. (contains ALCOHOL SULFATE C16/C18, SODIUM SALT)
Transport hazard class(es): 4.1
Packing group: III
Environmental hazards: No Mark as dangerous for the environment is needed
Special precautions for user: None known

UN number

See corresponding entries for "UN number" for the respective regulations in the tables above.

UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation: Not evaluated
Shipment approved: Not evaluated
Pollution name: Not evaluated
Pollution category: Not evaluated
Ship Type: Not evaluated

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15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Flam. Sol.	Flammable solids
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity — single exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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