

Safety Data Sheet according to (EC) No 1907/2006 as amended

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BONDERITE C-AD D-4 CLEANER ADDITIVE known as SYNERGIC D4 B20

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

1.1. Product identifier

BONDERITE C-AD D-4 CLEANER ADDITIVE known as SYNERGIC D4 B20

1.2. Relevant identified uses of the substance or mixture and uses advised against Intended use: Surfactant Mixtures

1.3. Details of the supplier of the safety data sheet

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For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

| Corrosive to metals | Category 1 |
|---|------------|
| H290 May be corrosive to metals. | |
| Acute toxicity | Category 4 |
| H302 Harmful if swallowed. | |
| Route of Exposure: Oral | |
| Skin corrosion | Category 1 |
| H314 Causes severe skin burns and eye damage. | |
| Serious eye damage | Category 1 |
| H318 Causes serious eye damage. | |
| | |

2.2. Label elements

Label elements (CLP):

| Hazard pictogram: | |
|--|---|
| Contains | Fatty alcohol, C10, ethoxylate |
| Signal word: | Danger |
| Hazard statement: | H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. |
| Precautionary statement: Prevention | P260 Do not breathe mist/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. |
| Precautionary statement: Response | P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor. |

2.3. Other hazards

None if used properly.

The classification as corrosive H314 category 1 is due to the extreme pH. Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration $\geq 0.1\%$ and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in concentration \geq the concentration limit that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components CAS-No. EC Number REACH-Reg No. | Concentration | Classification | Specific Conc. Limits, M- factors and ATEs | Add. Information |
|---|---------------|--|---|---------------------|
| Fatty alcohol, C10, ethoxylate 61827-42-7 | 40- 60 % | Acute Tox. 4, Oral, H302 Eye Dam. 1, H318 | | |
| 2(or 4)-toluenesulphonic acid 70788-37-3 274-893-2 | 10- < 20 % | Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 | | |

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available. Declaration of ingredients according to Detergent Regulation 648/2004/EC

> 30 %

non-ionic surfactants

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Move to fresh air. In case of adverse health effects seek medical advice.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. Seek medical attention from a specialist.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 15 minutes. Hold eyelid wide-open. Seek a doctor/hospital, eye flushing should continue during transportation to a doctor.

Ingestion:

Drink 1-2 glasses of water, do not induce vomiting, administer an antifoaming agent (sab simplex), seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed Causes burns.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Carbon dioxide, foam, powder Water spray jet

Extinguishing media which must not be used for safety reasons: High pressure waterjet

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in fires.

5.3. Advice for firefighters

Wear self-contained breathing apparatus. Wear protective equipment.

Additional information:

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Danger of slipping on spilled product. Avoid contact with skin and eyes.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Neutralize with acid-binding material (e.g. powdered limestone).

Take up with liquid-absorbing material (sand). Dispose of contaminated material as waste according to Section 13. 6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

When diluting, always stir slowly the product into standing water. Avoid skin and eye contact. Ensure that workrooms are adequately ventilated. See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. The workplace should be equipped with an emergency shower and eye-rinsing facility.

7.2. Conditions for safe storage, including any incompatibilities

Store in sealed original container. Store in a cool place in closed original container. Keep container tightly sealed and store in a frost free place. Keep only in original container. Do not store together with highly alkaline products. Do not store together with oxidants.

7.3. Specific end use(s) Surfactant Mixtures

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for Germany

None

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls: Ensure good ventilation/suction at the workplace.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

Hand protection:

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Polychloroprene (CR; ≥ 1 mm thickness) or natural rubber (NR; ≥ 1 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection: Goggles which can be tightly sealed. Protective eye equipment should conform to EN166.

Skin protection: Protective clothing that covers arms and legs. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | liquid |
|---|--|
| Delivery form | liquid |
| Colour | colourless, up to, slightly yellowish |
| Odor | odourless |
| Melting point | Not applicable, Product is a liquid |
| Initial boiling point | > 100 °C (> 212 °F)None |
| Flammability | Currently under determination |
| Explosive limits | Currently under determination |
| Flash point | Aqueous solution, Not applicable |
| Auto-ignition temperature | Currently under determination |
| Decomposition temperature | Currently under determination |
| рН | 2,1 - 2,8 PH-value, potentiometer |
| (20 °C (68 °F); Conc.: 10,0 g/l; Solvent: | |
| Demineralised water) | |
| рН | 0,39 PH-value, potentiometer |
| (20 °C (68 °F); Conc.: 100 % product; | |
| Solvent: Demineralised water) | |
| Viscosity (kinematic) | Currently under determination |
| Solubility (qualitative) | Soluble |
| (20 °C (68 °F); Solvent: Water) | |
| Partition coefficient: n-octanol/water | Not applicable |
| | Mixture |
| Vapour pressure | < 100 mbar |
| (50 °C (122 °F)) | |
| Density | 1,049 - 1,059 g/cm3 Density, oscillation |
| (20 °C (68 °F)) | |
| Relative vapour density: | Currently under determination |
| Particle characteristics | Not applicable |
| | Product is a liquid |

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reaction with strong bases Reaction with strong oxidants.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions See section reactivity

10.4. Conditions to avoid No decomposition if used according to specifications.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

In case of fire toxic gases can be released. None if used for intended purpose.

SECTION 11: Toxicological information

General toxicological information:

The classification as corrosive H314 category 1 is due to the extreme pH.

1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

No substance data available. No data available.

Acute dermal toxicity:

No data available.

Acute inhalative toxicity:

No data available.

Skin corrosion/irritation:

No data available.

Serious eye damage/irritation:

No data available.

Respiratory or skin sensitization:

No data available.

Germ cell mutagenicity:

No data available.

Carcinogenicity

No data available.

Reproductive toxicity:

No data available.

STOT-single exposure:

No data available.

STOT-repeated exposure::

No data available.

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

Locally harmful for aquatic and landliving organisms because of low pH and corrosive properties.

The biodegradability of the surfactants contained in the product is in accordance with the requirements of the EU Detergent Regulation (EC/648/2004).

The surfactants contained in the products are primary biodegradable to at least 90% on average.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|-----------------|---------------|---------|---|
| Fatty alcohol, C10, ethoxylate 61827-42-7 | LC50 | > 10 - 100 mg/l | 96 h | | OECD Guideline 203 (Fish, Acute Toxicity Test) |

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|---|-------|-----------------|---------------|---------|--|
| CAS-No. | type | | | | |
| Fatty alcohol, C10, ethoxylate 61827-42-7 | EC50 | > 10 - 100 mg/l | 48 h | I G | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|-----------|---------------|---------|--|
| Fatty alcohol, C10, ethoxylate 61827-42-7 | NOEC | 12,5 mg/l | 21 d | 1 0 | OECD 211 (Daphnia magna, Reproduction Test) |

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---------------------------------|---------------|-----------------|---------------|---------|---------------------------|
| Fatty alcohol, C10, ethoxylate | EC50 | > 10 - 100 mg/l | 72 h | | OECD Guideline 201 (Alga, |
| 61827-42-7 | | | | | Growth Inhibition Test) |

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---------------|---------|---------------|---------|---------------|
| Fatty alcohol, C10, ethoxylate 61827-42-7 | EC10 | 48 mg/l | 17 h | | not specified |

12.2. Persistence and degradability

| Hazardous substances | Result | Test type | Degradability | Exposure | Method |
|---|-----------------------|-----------|---------------|----------|--|
| CAS-No. | | | | time | |
| Fatty alcohol, C10, ethoxylate 61827-42-7 | readily biodegradable | aerobic | > 70 % | 14 d | OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test) |

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or vPvB.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

If acidic or alkaline products are discharged into wastewater installations care must be taken that the discharged wastewater has a pH in the range pH 6 - 10, as pH variations could cause disorders in wastewater channels and biological sewage treatment plants. The local discharge regulations take precedence.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

EWC/EAK 070608

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

| 2586 |
|--------------|
| 2586 2586 |
| 2586 2586 |
| |

14.2. UN proper shipping name

| ADR | ALKYLSULPHONIC ACIDS, LIQUID |
|------|------------------------------|
| RID | ALKYLSULPHONIC ACIDS, LIQUID |
| ADN | ALKYLSULPHONIC ACIDS, LIQUID |
| IMDG | ALKYLSULPHONIC ACIDS, LIQUID |
| IATA | Alkylsulphonic acids, liquid |

14.3. Transport hazard class(es)

| ADR | 8 |
|------|---|
| RID | 8 |
| ADN | 8 |
| IMDG | 8 |
| IATA | 8 |

14.4. Packing group

| ADR | III |
|------|-----|
| RID | III |
| ADN | III |
| IMDG | III |
| IATA | III |
| | |

14.5. Environmental hazards

| ADR | not applicable |
|------|----------------|
| RID | not applicable |
| ADN | ~ ~ |
| | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

14.6. Special precautions for user

| ADR | not applicable |
|------|-----------------|
| | Tunnelcode: (E) |
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |
| | |

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | | | |
|--|-----|----------------|--|
| Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Not applicable | | Not applicable | |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): | | Not applicable | |
| Persistent organic pollutants (Regulation (EU) 2019/1021): | | Not applicable | |
| VOC content | 0 % | | |
| (2010/75/EU) | | | |

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK:

WGK 1: slightly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 8B

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

| ED: | Substance identified as having endocrine disrupting properties |
|-------------|--|
| EU OEL: | Substance with a Union workplace exposure limit |
| EU EXPLD 1: | Substance listed in Annex I, Reg (EC) No. 2019/1148 |
| EU EXPLD 2 | Substance listed in Annex II, Reg (EC) No. 2019/1148 |
| SVHC: | Substance of very high concern (REACH Candidate List) |
| PBT: | Substance fulfilling persistent, bioaccumulative and toxic criteria |
| PBT/vPvB: | Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very |
| | bioaccumulative criteria |
| vPvB: | Substance fulfilling very persistent and very bioaccumulative criteria |

Further information:

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