

# SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH)



## Art. 4500, BITU-EX

Version: 13

Revision date: 05.07.2023

Date of print: 05.07.2023

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### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Identification / trade name:** Art. 4500, BITU-EX  
**REACH registration number:** not notifiable  
**UFI:** U5R0-0Y7V-UD05-QDUC

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

##### Use of the substance / mixture:

Bitumen and asphalt dissolver

#### 1.3 Details of the supplier of the safety data sheet

**Supplier / Manufacturer:** HWR-CHEMIE GmbH  
Moosfeldstrasse 7  
D-82275 Emmering

**Telephone:** 0049-8141-51030  
**Telefax:** 0049-8141-510355  
**E-mail:** info@hwr-chemie.de

**E-mail (competent person):** infoSDB@hwr-chemie.de  
**Information contact:** Laboratory

#### 1.4 Emergency phone

**Emergency phone Germany:** 0049-8141-51030 (only during office hours)  
**Emergency phone Austria:** 0043 1 406 43 43 (poison information centre)

### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture

##### Regulation (EC) No 1272/2008

Asp. Tox. 1, H304; Skin Sens. 1, H317; Eye Irrit. 2, H319; Aquatic Chronic 3, H412

#### 2.2 Label elements

##### Regulation (EC) No 1272/2008

##### Hazard pictograms



**Signal word:** Danger.

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### Hazard components for labeling

Hydrocarbons and Limonene

### Hazard statements

H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

P280 Wear protective gloves/eye protection/face protection.  
P301 + P310 + P331 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of water and soap  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P333 + P337 + P313 If skin irritation or rash occurs or eye irritation persists: Get medical advice/attention.  
P501 Dispose of contents/container at hazardous or special waste collection point.

### Supplementary Hazard Information

EUH066 Repeated exposure may cause skin dryness or cracking.

### 2.3 Other hazards

The substances in this mixture do not meet the PBT/vPvB criteria of REACH, annex XIII.  
The substances in this mixture do not have any endocrine disrupting properties.

## SECTION 3. Composition / information on ingredients

### 3.1 Substances

This product is a mixture.

### 3.2 Mixtures

#### Chemical characterization

Mixture of surfactants, fatty alcohols and hydrocarbons.

#### Hazardous ingredients

- 50 - 70 % Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics, EG 927-285-2, Asp. Tox. 1, H304
- 5 - 15 % 2-(2-Butoxyethoxy)-ethanol, EG 203-961-6, CAS 112-34-5, Eye Irrit. 2, H319
- 5 - 15 % Amidpolyglycoether, EG 932-164-2, CAS 85536-23-8, Skin Irrit. 2, H315; Aquatic Chronic 3, H412
- 1 - 5 % Orange, sweet, extract, contains > 90 % D-Limonene, EG 232-433-8, CAS 8028-48-6,  
Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin sens. 1, H317
- 1 - 5 % Dodecanol, EG 203-982-0, CAS 112-53-8, Eye Irrit. 2, H319; Aquatic Acute 1, H400;  
Aquatic Chronic 2, H411
- 1 - 5 % Tetradecanol, EG 204-000-3, CAS 112-72-1, Eye Irrit. 2, H319; Aquatic Chronic 1, H410

#### Additional information

Full text of hazard classes and H-phrases: see section 16

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### SECTION 4. First aid measures

#### 4.1 Description of first aid measures

- General informations:** In case of persistent symptoms seek medical advice. Remove contaminated clothing. In case of unconsciousness place patient into stable side position for transportation. Never give fluids or induce vomiting if patient is unconscious or is having convulsions.
- In case of inhalation:** Provide affected person with fresh air and seek medical advice depending on the symptoms.
- In case of skin contact:** Contaminated, soaked clothing should be immediately removed. Wash skin thoroughly with soap and water.
- In case of eye contact:** Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
- In case of ingestion:** Rinse mouth immediately and then drink plenty of water. Do not induce vomiting. Seek medical advice at once. In case of spontaneous vomiting hold the head of the casualty low with the body in a prone position in order to avoid aspiration.

#### 4.2 Most important symptoms and effects, both acute and delayed

Dizziness, headache. Contact with eyes may cause reddening, running eyes and smarting pain. Ingestion may result in nausea and stomach pain. Skin contact may cause irritation.

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

Symptomatic treatment (decontamination, vital functions), no known specific antidote.

### SECTION 5. Fire-fighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Water spray jet / alcohol resistant foam / CO<sub>2</sub> / dry extinguishing powder

**Unsuitable extinguishing media:** Full water jet.

#### 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.  
In case of fire may be liberated: carbon oxides.

#### 5.3 Advice for fire-fighters

Cool closed containers exposed to fire with water spray jet.  
Special protective equipment: Wear full protective suit with self-contained breathing apparatus.  
Collect contaminated fire extinguishing water separately. Do not allow entering drains, surface water or soil.

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### SECTION 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear protective equipment.

#### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3 Methods and material for containment and cleaning up

Absorb with an absorbent material and dispose of according to local regulations.

#### 6.4 Reference to other sections

Observe protective measures in sections 8 and disposal considerations in section 13.

### SECTION 7. Handling and Storage

#### 7.1 Precautions for safe handling

##### Advices on safe handling

Wear protective clothing. Open carefully and keep container closed when not in use.

Use only in well-ventilated areas or provide local extraction.

Avoid release into the environment.

General hygiene measures:

- Eating, drinking or smoking is prohibited in areas, where work is performed.
- Wash your hands after use.
- Take off contaminated clothing and protective equipment before entering eating areas.

##### Precautions against fire and explosion

Flammable vapour/air-mixtures may be formed.

Ground/bond container and receiving equipment.

Use only spark-/explosionproof appliances in danger zones.

Take precautionary measures against static discharges.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool and well-ventilated place. Store locked up.

Storage compatibility and limitations according to TRGS 510 must be observed.

#### 7.3 Specific end uses

Observe product information sheet.

eCI@ss (8.0): 30-02-16-90 / GISCODE: GG50

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### SECTION 8. Exposure controls / Personal protection

#### 8.1 Control parameters

##### Workplace exposure limits according to TRGS 900

Substances: Hydrocarbon mixture, C9-C15 Aliphatics

Occupational exposure limit: 600 mg/m<sup>3</sup>

Top limiting and exceedance factor: 2 (II)

Substances: 2-(2-Butoxyethoxy)ethanol

Occupational exposure limit: 10 ppm, 67 mg/m<sup>3</sup>

Top limiting and exceedance factor: 1,5 (I)

Notes: DFG, Y, EU, 11

Substances: (R)-p-Mentha-1,8-diene (D-Limonene)

Occupational exposure limit: 5 ppm, 28 mg/m<sup>3</sup>

Top limiting and exceedance factor: 4 (II)

Notes: H, Sh, Y, DFG

##### Community workplace exposure limits

Substances: 2-(2-Butoxyethoxy)ethanol

EU limits (8h): 67.5 mg/m<sup>3</sup>, 10 ppm

EU limits (Short-term): 101.2 mg/m<sup>3</sup>, 15 ppm

#### 8.2 Exposure controls / Personal protection equipment

##### Appropriate engineering controls

See section 7. No additional measures necessary.

##### Personal protection equipment

**Respiratory protection:** In case of excessive vapours wear a respirator mask filter A2.

**Hand protection:** Tested gloves with breakthrough time  $\geq$  8 hours made from NBR (0.35 mm) or FKM (0.4 mm)

**Eye protection:** use safety goggles

**Protective clothing:** usual work clothes

##### General health and safety measures

Respect good personal hygiene. Do not drink, eat or smoke while handling.

##### Environmental exposure controls

See section 6 and 7.

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### SECTION 9. Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General information

<b>Physical state:</b>	liquid
<b>Colour:</b>	yellow
<b>Odour:</b>	mild
<b>pH value (undiluted):</b>	not applicable
<b>pH value (1 %):</b>	approx. 7
<b>Melting point/Freezing point (°C):</b>	approx. -30
<b>Boiling temperature (°C):</b>	> 175
<b>Flashpoint (°C):</b>	> 61
<b>Flammability (solid, gas):</b>	not applicable
<b>Lower explosion limit:</b>	not determined
<b>Upper explosion limit:</b>	not determined
<b>Vapour pressure (hPa):</b>	3.6 (main ingredient)
<b>Relative vapor density:</b>	not determined
<b>Density (20 °C):</b>	approx. 0.81
<b>Solubility:</b>	emulsifiable in water
<b>Partition coefficient (KOW):</b>	not determined
<b>Ignition temperature:</b>	not determined
<b>Decomposition temperature:</b>	not determined
<b>Dynamic viscosity (mPas):</b>	< 10
<b>Particle properties:</b>	not applicable

#### 9.2 Other information

##### Other safety characteristics

No other physical and chemical data has been recorded.

### SECTION 10. Stability and Reactivity

#### 10.1 Reactivity

Mixture of solvents, no particular reactivity expected.

#### 10.2 Chemical stability

Stable under the specified storage conditions.

#### 10.3 Possibility of hazardous reactions

There are expected no hazardous reactions for intended use.

#### 10.4 Conditions to avoid

Avoid heat, direct sunlight, electrostatic discharges and sparks.  
Note the information about handling and storage in section 7.

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### 10.5 Incompatible materials

Different plastics can be attacked.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11. Toxicological information

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

#### Acute toxicity

The mixture does not meet the criteria for classification.

#### Skin Corrosion / Irritation

The mixture does not meet the criteria for classification.

#### Serious Eye Damage / Irritation

Mixture is classified as irritating to the eyes.

#### Sensitisation

Sensitising by skin contact.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture does not contain any substances which are classified as carcinogenic, mutagenic or toxic for reproduction.

#### Specific target organ toxicity (single exposure)

Mixture does not contain any substances with specific target organ toxicity.

#### Specific target organ toxicity (repeated exposure)

Mixture does not contain any substances with specific target organ toxicity.

#### Aspiration hazard

May be fatal if swallowed and enters airways.

### 11.2 Information on other hazards

#### Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

#### Other information

No further data available.

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### SECTION 12. Ecological information

The available data refer to the substances in the mixture. The mixture as a whole has not been tested.

#### 12.1 Toxicity

Orange, sweet, extract:

Algae toxicity: EC50 (Desmodesmus Sub) 150 mg/L 72 h (OECD 201)

Daphnia toxicity: EC50 (Daphnia magna,) 0,67 mg/L 48 h (OECD 202, Limonene)

Fish toxicity: LC50 (Pimephales promelas) 0,7 mg/L 96 h (OECD 203)

Amidpolyglycoether:

Algae toxicity: NOEC 4,9 mg/L 72 h (OECD 201)

Daphnia toxicity: EC50 3,8 mg/L 48 h (OECD 202)

Fish toxicity: LC50 2,9 mg/L 96 h (OECD 203)

Dodecanol:

Algae toxicity: ErC50 (Desmodesmus Sub) >0,1-1 mg/L 72 h (OECD 201)

Daphnia toxicity: EC50 (Daphnia magna) >0,1-1 mg/L 48 h (OECD 202)

Tetradecanol:

Daphnia toxicity: NOEC (Daphnia magna) >0,0001-0,01 mg/L 21 d (OECD 211)

#### 12.2 Persistence and degradability

Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics

No further relevant information available.

2-(2-Butoxyethoxy)-ethanol

Fast photochemical oxidation in the air. Readily biodegradable (>90%, OECD 301E).

Amidpolyglycoether

Readily biodegradable (according to OECD criteria)

Orange, sweet, extract

Readily biodegradable (72-83.4%, OECD 301B)

Dodecanol

Readily biodegradable (>60%, OECD 301D)

Tetradecanol

Readily biodegradable (>60%, OECD 301B)



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### 12.3 Bioaccumulative potential

Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics  
No further relevant information available.

2-(2-Butoxyethoxy)-ethanol  
Not expected to bioaccumulate.

Amidpolyglycoether  
Bioaccumulation is potentially possible.

Orange, sweet, extract  
No further relevant information available.

Dodecanol  
Not expected to bioaccumulate.

Tetradecanol  
Not expected to bioaccumulate.

### 12.4 Mobility in soil

Hydrocarbons, C11-14, aliphatic, isoalkane, cyclic, < 2% aromatics  
No further relevant information available.

2-(2-Butoxyethoxy)-ethanol  
No further relevant information available.

Amidpolyglycoether  
No further relevant information available.

Orange, sweet, extract  
No further relevant information available.

Dodecanol  
Absorption to solid soil phase is not expected. Substance is not volatile.

Tetradecanol  
Absorption to solid soil phase is not expected. Substance is not volatile.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances which are identified as PBT or vPvB.

### 12.6 Endocrine disrupting properties

This mixture does not contain any substances which are identified as endocrine disrupting.

### 12.7 Other adverse effects

The mixture does not contain any substances which are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

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### SECTION 13. Disposal considerations

#### 13.1 Waste treatment methods

##### Recommendation

Cleaning concentrates should not be disposed of via wastewater. Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations.

##### Waste codes/waste designations according to EWC

20 01 29 (detergents containing hazardous substances)

##### Packaging

##### Contaminated package

Hazardous waste according to European list of wastes. Dispose of in accordance with local, official regulations. Waste code 15 01 10 (packaging containing residues of or contaminated by hazardous substances)

##### Cleaned package

Non contaminated and clean packagings can be used for recycling.

### SECTION 14. Transport information

#### 14.1 UN number or ID number

not applicable

#### 14.2 UN Proper shipping name:

##### ADR / RID:

No dangerous good in sense of this transport regulation.

##### IMDG-Code / ICAO-TI / IATA-DGR:

No dangerous good in sense of this transport regulation.

#### 14.3 Transport hazard class(es)

##### ADR / RID / IMDG-Code / ICAO-TI / IATA-DGR:

not applicable

#### 14.4 Packing group

not applicable

#### 14.5 Environmental hazards

not applicable

#### 14.6 Special precautions for user

See section 6 and 8.

#### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

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### SECTION 15. Regulatory information

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

##### EU regulations

Subject to the Regulation (EC) No. 648/2004 on detergents.

##### National regulations

Maternity Protection Act (MuSchG): not applicable.

Major Accidents Ordinance (12. BImSchV): not applicable.

Observe employment restrictions for young people (§ 22 JArbSchG).

Water hazard class: WGK 2 (in accordance with German regulation AwSV)

#### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

### SECTION 16. Other information

#### Indication of changes

Revised sections: 1, 2, 15

#### Hazard statements referred to in Section 2 and 3 i.a.w. Regulation (EC) No 1272/2008

Flam. Liq 3, H226 = Flammable liquids, category 3, Flammable liquid and vapour.

Asp. Tox. 1, H304 = Aspiration hazard, category 1, May be fatal if swallowed and enters airways.

Skin Irrit. 2, H315 = Skin corrosion / irritation, category 2, Causes skin irritation.

Skin Sens. 1A/B, H317 = Skin sensitisation, category 1A/B, May cause an allergic skin reaction.

Eye Irrit. 2, H319 = Eye damage / irritation, category 2, Causes serious eye irritation.

Aquatic Acute 1, H400 = Hazardous to the aquatic environment, acute, category 1, Very toxic to aquatic life.

Aquatic Chronic 1, H410 = Hazardous to the aquatic environment, chronic, category 1, Very toxic to aquatic life with long lasting effects.

Aquatic Chronic 2, H411 = Hazardous to the aquatic environment, chronic, category 2, Toxic to aquatic life with long lasting effects.

Aquatic Chronic 3, H412 = Hazardous to the aquatic environment, chronic, category 3, Harmful to aquatic life with long lasting effects.

#### Key literature references and sources for data

REACH Regulation (EC) No. 1907/2006

CLP Regulation (EC) No. 1272/2008

All data were taken from the safety data sheets of our sub-suppliers, where available. Missing data were taken from the Substance Database GESTIS of the Institute for Occupational Safety and Health of the German statutory accident insurance or from the database of the European Chemicals Agency (ECHA).

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### Legend

ABEK	Filter designation
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE mix	Acute Toxicity Estimates for mixtures
AVV	European waste list regulation
AwSV	Ordinance on systems for handling water-polluting substances
Butyl	Butyl rubber
CAS	(Registration number) Chemical Abstracts Service
CLP	Regulation on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenicity, mutagenicity, reproductive toxicity
CR	Chloroprene rubber
EC50	Median effective concentration
EG	(Registration number) European Union
ErC50	Median effective concentration
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FKM	Fluorocarbon rubber
GISCODE	Labelling system of the professional associations in the construction industry
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	Technical Instructions For The Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration of a substance leading to the death of 50% of the exposed organisms
LD50	Lethal dose of a substance that leads to death of 50% of the organisms exposed to it
MARPOL	International Convention for the Prevention of Pollution from Ships
NBR	Acrylonitrile butadiene rubber
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
NR	Natural rubber
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, bioaccumulating, toxic
PET	Polyethylene terephthalate
PTFE	Polytetrafluoroethylene
PVC	Polyvinyl chloride
REACH	Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Convention concerning International Carriage by Rail
TRGS	Technical Rules for Hazardous Substances
UN	United Nations
US-EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
vPvB	Very persistent, very bioaccumulating
WGK	Water hazard class

### Further information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal.