

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixture
 Product name : AX
 Product code : 242
 Type of product : Biocidal products (e.g. Disinfectants, pest control)
 Product group : Mixture

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

Main use category : Professional use
 Industrial/Professional use spec : Industrial
 For professional use only
 Use of the substance/mixture : Bactericide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet
Manufacturer

Clover Chemicals Ltd
 Clover House Macclesfield Road
 SK23 7DQ Whaley Bridge – Derbyshire
 United Kingdom
 T 01663 733114 - F 01663 733115
info@cloverchemicals.com - www.cloverchemicals.com

Supplier

Christeyns NV
 Afrikalaan 182
 9000 GENT
 Belgium
 T +32 (0)9/ 223 38 71 - F +32 (0)9/ 233 03 44
info@christeyns.be - www.christeyns.com

1.4. Emergency telephone number

| Country | Official advisory body | Address | Emergency number | Comment |
|----------------|--|--|--|--------------------------------------|
| Ireland | National Poisons Information Centre Beaumont Hospital | PO Box 1297 Beaumont Road 9 Dublin | +353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7) | |
| United Kingdom | National Poisons Information Service (Birmingham Centre) City Hospital | Dudley Road B18 7QH Birmingham | 0344 892 0111 | Only for healthcare professionals |

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aquatic Chronic 3 H412

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

CLP Signal word : -
 Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.
 Precautionary statements (CLP) : P102 - Keep out of reach of children.
 P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

| Component | |
|--|---|
| Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |

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The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|-------|---|
| Ethanol substance with national workplace exposure limit(s) (GB) | CAS-no: 64-17-5 Einecs nr: 200-578-6 EG annex nr: 603-002-00-5 REACH-no: 01-2119457610-43 | 5.987 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 |
| Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides | CAS-no: 68424-85-1 Einecs nr: 270-325-2 | 0.253 | Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 |

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation

: Allow affected person to breathe fresh air. Allow the victim to rest.

Skin contact

: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact

: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

Ingestion

: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Acute effects skin

: mild skin irritation.

Acute effects eyes

: May cause eye irritation. Redness.

Acute effects oral route

: May cause irritation to the digestive tract.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire

: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Firefighting instructions

: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment

: Equip cleanup crew with proper protection.

Emergency procedures

: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, well-ventilated place. Keep container tightly closed.
Packaging materials : polyethylene. stainless steel. glass.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| Ethanol (64-17-5) | |
|---|---------------------------------------|
| United Kingdom - Occupational Exposure Limits | |
| Local name | Ethanol |
| WEL TWA (OEL TWA) [1] | 1920 mg/m ³ |
| WEL TWA (OEL TWA) [2] | 1000 ppm |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

No additional information available

8.2.2.2. Skin protection

Hand protection:

Wear protective gloves.

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Liquid |
| Colour | : Yellow. |
| Physical state/form | : Liquid. |
| Odour | : Characteristic. Alcohol. |
| Odour threshold | : Not available |
| Melting point/range | : -4 °C |
| Freezing point | : Not available |
| Boiling point/Boiling range | : 98 °C |
| Flammability | : Non flammable. |
| Explosive limits | : Not available |
| Lower explosion limit | : Not available |
| Upper explosion limit | : Not available |
| Flash point | : 61.5 °C |
| Autoignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : 6.5 – 9 |
| Viscosity, kinematic | : Not available |
| Solubility | : Soluble in water. Soluble in ethanol. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50 °C | : Not available |
| Density | : Not available |
| Relative density | : 0.99 |
| Relative vapour density at 20 °C | : Not available |
| Particle characteristics | : Not applicable |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 100 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

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

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

Ethanol (64-17-5)

| | |
|---------------------------------|------------|
| LC50 Inhalation - Rat (Vapours) | 51 mg/l/4h |
|---------------------------------|------------|

Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)

| | |
|---------------|-----------|
| LD50 oral rat | 795 mg/kg |
|---------------|-----------|

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| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Not classified pH: 6.5 – 9 |
| Additional information | : Based on available data, the classification criteria are not met |
| Serious eye damage/irritation | : Not classified pH: 6.5 – 9 |
| Additional information | : Based on available data, the classification criteria are not met |
| Respiratory or skin sensitisation | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| Germ cell mutagenicity | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| Carcinogenicity | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| Reproductive toxicity | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| STOT-single exposure | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |

Ethanol (64-17-5)

| | |
|------------------------|--|
| NOAEL (oral, rat) | 1730 mg/kg bodyweight (90d, female) |
| STOT-repeated exposure | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |
| Aspiration hazard | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|--|
| Ecology - water | : Harmful to aquatic life with long lasting effects. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : Harmful to aquatic life with long lasting effects. |
| Not rapidly degradable | |

Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)

| | |
|------------------------|------------|
| LC50 - Fish [1] | 0.85 mg/l |
| EC50 - Crustacea [1] | 0.016 mg/l |
| EC50 72h - Algae [1] | 0.02 mg/l |
| NOEC chronic crustacea | 0.025 mg/l |

12.2. Persistence and degradability

AX

| | |
|-------------------------------|----------------|
| Persistence and degradability | Biodegradable. |
|-------------------------------|----------------|

Ethanol (64-17-5)

| | |
|-------------------------------|----------------|
| Persistence and degradability | Biodegradable. |
|-------------------------------|----------------|

Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1)

| | |
|-------------------------------|----------------|
| Persistence and degradability | Biodegradable. |
| Biodegradation | > 90 % |

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12.3. Bioaccumulative potential

| AX | |
|--|---------------------|
| Bioaccumulative potential | No bioaccumulation. |
| Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl, chlorides (68424-85-1) | |
| Partition coefficient n-octanol/water (Log Kow) | 2.88 |
| Bioaccumulative potential | No bioaccumulation. |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

| AX | |
|--|--|
| This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII | |
| This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII | |

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Waste / unused products : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

| ADR | IMDG | IATA |
|--|---------------|---------------|
| 14.1. UN number or ID number | | |
| Not regulated | Not regulated | Not regulated |
| 14.2. UN proper shipping name | | |
| Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | |
| Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | |
| Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | |
| Not regulated | Not regulated | Not regulated |
| No supplementary information available | | |

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : 100 g/l

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

| | |
|---------------------|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment — Chronic Hazard, Category 3 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| H225 | Highly flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1, Sub-Category 1B |

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| | | |
|-------------------|------|--------------------|
| Aquatic Chronic 3 | H412 | Calculation method |
|-------------------|------|--------------------|

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.