

Hydrosure HD-5000

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Hydrosure HD-5000

Other means of identification : Not applicable.

Recommended use : BIOCIDES

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : ChampionX Australia Pty Ltd
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Australia
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Emergency telephone number : CHEMCALL 1800 127 406, International: +64 4 917 8888

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Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 4

Acute toxicity (Oral) : Category 4

Skin corrosion/irritation : Category 1B

Serious eye damage/eye irritation : Category 1

Specific target organ toxicity - repeated exposure : Category 2 (Kidney)

GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Combustible liquid
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause damage to organs (Kidney) through prolonged or repeated exposure.

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove

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victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Concentration: (%)</u>
Didecyl-Dimethyl-Ammonium chloride	7173-51-5	10 - 30
Ammonium Bisulfite	10192-30-0	10 - 30
Ethylene Glycol	107-21-1	10 - 30
Quaternary ammonium compounds C12-16-alkyltrimethyl chlorides	308074-39-7	10 - 30

Section: 4. FIRST AID MEASURES

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Contact the Poison's Information Centre (eg Australia 13 1126; New Zealand 0800 764 766).
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.
- Notes to physician : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Foam
Carbon dioxide
Dry powder
Other extinguishing agent suitable for Class B fires
For large fires, use water spray or fog, thoroughly drenching the burning

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	material.
Unsuitable extinguishing media	: None known.
Specific hazards during firefighting	: Fire Hazard Keep away from heat and sources of ignition. Flash back possible over considerable distance.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides
Special protective equipment for firefighters	: Use personal protective equipment.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Hazchem Code	: 2X

Section: 6. ACCIDENTAL RELEASE MEASURES

Initial Emergency Response Guide No	: 37
Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Section: 7. HANDLING AND STORAGE

Advice on safe handling	: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Do not ingest. Keep away from fire, sparks and heated surfaces. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.
Conditions for safe storage	: Keep away from heat and sources of ignition. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
Suitable material	: Keep in properly labelled containers.
Unsuitable material	: not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Ethylene Glycol	107-21-1	TWA (Vapour.)	20 ppm 52 mg/m ³	AU OEL
		VLE (Vapour.)	40 ppm 104 mg/m ³	AU OEL
		TWA (Particulate.)	10 mg/m ³	AU OEL
Ethylene Glycol	107-21-1	WES-Ceiling (Vapour and mist)	50 ppm 127 mg/m ³	NZ OEL
Ethylene Glycol	107-21-1	TWA (Vapour.)	25 ppm	ACGIH
		STEL (Vapour.)	50 ppm	ACGIH
		STEL (Inhalable fraction, Aerosol only)	10 mg/m ³	ACGIH

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.
Nitrile-rubber, Butyl-Rubber, or Neoprene gloves.
Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.
Where concentrations in air may exceed the limits given in this section or when significant vapours are generated, use an approved air purifying respirator fitted with a gas and vapour cartridge.
Use a particulate pre-filter where operations generate significant mists or aerosols.
Recommended gas and vapour cartridge:
Multi-purpose combination filter
In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA or supplied-air respirator should be used.

Refer to AS/NZS 1715 and AS/NZS 1716 for selection, use and maintenance of respiratory protective equipment as applicable.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a

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proper risk assessment and in accordance with a PPE management program.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: clear colourless
Odour	: characteristic
Flash point	: 92 °C
pH	: 4.51 - 6.51,(5 %)
Odour Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: 194 - 205 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: Not applicable.
Upper explosion limit	: 15.3 V%
Lower explosion limit	: 3.2 V%
Vapour pressure	: 0.123 hPa,
Relative vapour density	: no data available
Relative density	: 1.046 - 1.076, (20 °C),
Density	: 1.044 - 1.074 g/cm ³
Water solubility	: soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: 410 °C
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Molecular weight	: no data available
VOC	: no data available

Note: properties listed in this section may be typical, calculated, or estimated values and should not be used as product specifications or for system design. For product specifications see the COA or Technical Data sheet.

Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents

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Strong bases

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon oxides
nitrogen oxides (NOx)
Sulphur oxides

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes : Causes serious eye damage.
Skin : Causes severe skin burns.
Ingestion : Harmful if swallowed. Causes digestive tract burns.
Inhalation : May cause nose, throat, and lung irritation.
Chronic Exposure : May cause damage to organs through prolonged or repeated exposure.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion
Skin contact : Redness, Pain, Corrosion
Ingestion : Corrosion, Abdominal pain
Inhalation : Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity : Acute toxicity estimate: 1,728 mg/kg
Acute inhalation toxicity : no data available
Acute dermal toxicity : no data available
Skin corrosion/irritation : no data available
Serious eye damage/eye irritation : no data available
Respiratory or skin sensitization : no data available
Carcinogenicity : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive effects : No toxicity to reproduction
Germ cell mutagenicity : Contains no ingredient listed as a mutagen
Teratogenicity : no data available
STOT - single exposure : no data available
STOT - repeated exposure : May cause damage to organs through prolonged or repeated exposure.

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Aspiration toxicity : No aspiration toxicity classification

Components

Acute dermal toxicity : Didecyl-Dimethyl-Ammonium chloride
LD50 rabbit: 2,930 mg/kg
Ethylene Glycol
LD50 rabbit: 10,600 mg/kg
Quaternary ammonium compounds C12-16-alkyltrimethyl chlorides
LD50 rabbit: 429 mg/kg

Human Hazard Characterization

Based on our hazard characterization, the potential human hazard is: High

Section: 12. ECOLOGICAL INFORMATION

Toxicity

Environmental Effects : Very toxic to aquatic life with long lasting effects.

Product

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

Components

Toxicity to fish : Didecyl-Dimethyl-Ammonium chloride
LC50 : 1 mg/l
Exposure time: 96 h
Ethylene Glycol
LC50 : 72,860 mg/l
Exposure time: 96 h

Components

Toxicity to daphnia and other aquatic invertebrates : Ammonium Bisulfite
EC50 : 89 mg/l
Exposure time: 48 h
Ethylene Glycol
EC50 : > 100 mg/l
Exposure time: 48 h

Components

Toxicity to algae : Ethylene Glycol
EC50 : 6,500 mg/l
Exposure time: 96 h

Components

Toxicity to bacteria : Ethylene Glycol
> 1,995 mg/l

Components

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Toxicity to fish (Chronic toxicity) : Ethylene Glycol
NOEC: 15,380 mg/l
Exposure time: 7 d

Components

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Ethylene Glycol
NOEC: 8,590 mg/l
Exposure time: 7 d

Persistence and degradability

no data available

Mobility

no data available

Bioaccumulative potential

no data available

Other information

no data available

ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION

Based on our hazard characterization, the potential environmental hazard is: High

Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport

Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s): : Didecyl-Dimethyl-Ammonium chloride, Quaternary ammonium compounds
UN/ID No. : UN 1760
Transport hazard class(es) : 8
Packing group : II
IERG No : 37
Hazchem Code : 2X

Air transport (IATA)

UN/ID No. : UN 1760
Proper shipping name : CORROSIVE LIQUID, N.O.S.

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Technical name(s) : Didecyl-Dimethyl-Ammonium chloride, Quaternary ammonium compounds
Transport hazard class(es) : 8
Packing group : II

Sea transport (IMDG/IMO)

UN/ID No. : UN 1760
Proper shipping name : CORROSIVE LIQUID, N.O.S.
Technical name(s) : Didecyl-Dimethyl-Ammonium chloride, Quaternary ammonium compounds
Transport hazard class(es) : 8
Packing group : II
Marine pollutant : Didecyl-Dimethyl-Ammonium chloride

Section: 15. REGULATORY INFORMATION

Standard for the Uniform : Schedule 6
Scheduling of Medicines and
Poisons

INTERNATIONAL CHEMICAL CONTROL LAWS :

United States TSCA Inventory

Substance(s) not listed on TSCA inventory

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory

not determined

Korea. Korean Existing Chemicals Inventory (KECI)

not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

not determined

China Inventory of Existing Chemical Substances

not determined

Taiwan Chemical Substance Inventory

not determined

Section: 16. OTHER INFORMATION

REFERENCES

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C. (TOMES CPS™ CD-ROM Version),
Micromedex, Inc., Englewood, CO.

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Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH,
(TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS™ CD-ROM Version), Micromedex, Inc., Englewood, CO.

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Prepared By	: Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.