

**ENDEW™**

Version 1.0

SDS Number: 70180

Revision Date: 09/15/19

SECTION 1. IDENTIFICATION

Product name : ENDEW

Product code : 70180

Manufacturer or supplier's details

Company : EDMAR CHEMICAL COMPANY
539 East Washington Street
P.O. Box 598
Chagrin Falls, OH 44022-0598

E-mail address : Info@EdmarChem.com

Emergency telephone number : For US only CHEMTREC 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use : Cleaning/washing agents and disinfectants

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1B

Eye irritation : Category 2A

GHS Label element

Hazard pictograms



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.



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P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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.

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Didecyldimethylammonium chloride	7173-51-5	50.00
Ethanol	64-17-5	10.00
Water	7732-18-5	40.00

SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.
Call a physician immediately.
If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact : After contact with skin, wash immediately with plenty of soap and water.
Call a physician immediately.
Take off all contaminated clothing immediately.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Call a physician immediately.

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If swallowed : Call a physician immediately.
Clean mouth with water and drink afterwards plenty of water.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Dry powder
Water spray
Foam

Specific hazards during firefighting : Heating or fire can release toxic gas.

Further information : Use water spray to cool unopened containers.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use respirator when performing operations involving potential exposure to vapor of the product.

Environmental precautions

General advice : Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up : 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).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid contact with skin and eyes.
Provide sufficient air exchange and/or exhaust in work rooms.

Conditions for safe storage : Keep container tightly closed.
To maintain product quality, do not store in heat or direct sunlight.
Keep in a dry, cool and well-ventilated place.

Recommended storage temperature : < 60 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	STEL	1,000 ppm	ACGIH
		REL	1,000 ppm 1,900 mg/m3	NIOSH/GUIDE
		PEL	1,000 ppm 1,900 mg/m3	OSHA_TRANS



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		TWA	1,000 ppm 1,900 mg/m ³	Z1A
		STEL	1,000 ppm	CAD ON OEL

Appropriate engineering controls**Personal protective equipment**

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- Hand protection
- Material : Nitrile rubber
- Rate of permeability : > 480 min
- Eye protection : Tightly fitting safety goggles
Face-shield
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Rubber or plastic apron
Rubber or plastic boots
- Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : light yellow
- Odor : alcohol-like
- Odor Threshold : no data available
- pH : 6.5 - 9, Concentration: 100 g/l (25 °C)
- setting point : -20 °C
- Boiling point/boiling range : no data available
- Flash point : 43 °C
Method: Setaflash Closed Tester (ASTM D3278), closed cup
Does not sustain combustion according to ASTM 4206
- Evaporation rate : no data available
- Upper explosion limit : no data available
- Lower explosion limit : no data available
- Vapour pressure : no data available
- Relative vapour density : no data available
- Relative density : no data available
- Density : 0.93 g/cm³ (25 °C)
- Solubility(ies)
- Water solubility : completely soluble
- Partition coefficient: n-octanol/water : no data available
- Auto-ignition temperature : no data available
- Decomposition temperature : no data available
- Viscosity
- Viscosity, dynamic : < 100 mPa.s (25 °C)
- Viscosity, kinematic : no data available

SECTION 10. STABILITY AND REACTIVITY

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Possibility of hazardous reactions	: Stable under normal conditions.
Conditions to avoid	: no data available
Incompatible materials	: Reducing agents Strong oxidizing agents
Hazardous decomposition products	: Nitrogen oxides (NOx) hydrochloric acid Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation Ingestion Eyes Skin
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Acute toxicity

Acute oral toxicity (LD50)	: 450 mg/kg Species: Rat
Acute dermal toxicity (LD50)	: 4,300 mg/kg Species: Rabbit

Skin corrosion/irritation

Skin irritation	: Corrosive Species: Rabbit Exposure time: 4 h Method: OECD Test Guideline 404 GLP: yes
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Serious eye damage/eye irritation

Eye irritation	: severe irritant Species: Rabbit
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Respiratory or skin sensitization

Sensitization	: Test Type: Buehler Test Species: Guinea pig Result: not sensitizing
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Germ cell mutagenicity

Genotoxicity in vitro	: not mutagenic Ames test, Salmonella
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Germ cell mutagenicity- Assessment	: not mutagenic
Carcinogenicity - Assessment	:

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

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Toxicity to fish (LC50) : Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates (EC50) : 0.94 mg/l
Species: Daphnia magna (Water flea)
Exposure time: 48 h

Toxicity to terrestrial organisms : LC50: > 5,620.000 ppm
End point: Subacute toxicity

Persistence and degradability

no data available

Bioaccumulative potential

Bioaccumulation : Remarks: no data available

Components:**Ethanol**

Partition coefficient: n-octanol/water : log Pow: -0.3

Mobility in soil

Distribution among environmental compartments : Remarks: no data available

Other adverse effects

Results of PBT and vPvB assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Additional ecological information : no data available

The following ecotoxicological data refer to:

Didecyldimethylammonium chloride (CAS-No.: 7173-51-5)

Ecotoxicity

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Toxicity to fish (LC50)	: 0.19 mg/l Species: Pimephales promelas (fathead minnow) Acute toxicity Exposure time: 96 h Analytical monitoring: yes Method: US-EPA GLP: yes
Toxicity to fish (NOEC)	0.032 mg/l Species: Danio rerio (zebra fish) Chronic toxicity Exposure time: 34 d Analytical monitoring: yes Method: OECD Test Guideline 210 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (EC50)	: 0.062 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h Analytical monitoring: yes Method: EPA-FIFRA GLP: yes
Toxicity to daphnia and other aquatic invertebrates (NOEC)	: 0.010 mg/l Species: Daphnia magna (Water flea) Reproduction Test Exposure time: 21 d Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes
Toxicity to algae (ErC50)	: 0.026 mg/l Species: Pseudokirchneriella subcapitata (green algae) Growth inhibition Exposure time: 96 h Test Type: Growth inhibition Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity)	: 10
M-Factor (Chronic aquatic toxicity)	: 1
Toxicity to bacteria (EC50)	: 11 mg/l Species: activated sludge Respiration inhibition Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209 GLP: yes

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Toxicity to soil dwelling organisms : NOEC (*Eisenia fetida* (earthworms)): $\geq 1,000$ mg/kg
Exposure time: 14 d
Method: OECD Test Guideline 207
GLP: yes

Plant toxicity : EC50: 283 - 1,670 mg/kg
Exposure time: 14 d
End point: Growth inhibition
Method: OECD Test Guideline 208

Persistence and degradability

Biodegradability : Test Type: Modified Sturm Test
Concentration: 10 mg/l
Result: Readily biodegradable
Biodegradation: 72 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

Test Type: Die-Away Test
Concentration: 0.016 mg/l
Biodegradation: 93.3 %
Exposure time: 28 d
GLP: yes

Test Type: OECD Confirmatory Test
Biodegradation: 91 %
Exposure time: 24 - 70 d
Method: OECD Test Guideline 303 A
GLP: no

Remarks: The surfactant(s) contained in this mixture complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Stability in water : Test Type: Abiotic degradation
Method: EPA-FIFRA
GLP: yes

Bioaccumulative potential

no data available

Mobility in soil

Distribution among environmental compartments : Mobility in soil
Method: US-EPA

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Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues	:	Dispose of in accordance with local regulations. Contact waste disposal services.
Contaminated packaging	:	Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION**IATA**

UN number	:	2920
Proper shipping name	:	Corrosive liquid, flammable, n.o.s. (Didecyldimethylammonium chloride, Ethanol)
Transport hazard class	:	8
Packing group	:	II
Labels	:	8 (3)
Environmental hazards	:	no

IMDG

UN number	:	2920
Proper shipping name	:	Corrosive liquid, flammable, n.o.s. (Didecyldimethylammonium chloride, Ethanol)
Transport hazard class	:	8
Packing group	:	II
Labels	:	8 (3)
EmS Number 1	:	F-E
EmS Number 2	:	S-C
Environmental hazards	:	Marine pollutant: yes

ADR

UN number	:	2920
Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Didecyldimethylammonium chloride, Ethanol)
Transport hazard class	:	8
Packing group	:	II
Classification Code	:	CF1
Hazard Identification Number	:	83
Labels	:	8 (3)
Environmental hazards	:	yes



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RID

UN number : 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Didecyldimethylammonium chloride, Ethanol)
Transport hazard class : 8
Packing group : II
Classification Code : CF1
Hazard Identification Number : 83
Labels : 8 (3)
Environmental hazards : yes

DOT

UN number : 1903
Proper shipping name : Disinfectants, liquid, corrosive n.o.s.
(Didecyldimethylammonium chloride)
Transport hazard class : 8
Packing group : II
Labels : 8
Emergency Response Guidebook Number : 153
Environmental hazards : no

TDG

UN number : 2920
Proper shipping name : CORROSIVE LIQUID, FLAMMABLE, N.O.S.
(Didecyldimethylammonium chloride, cont. Ethanol)
Transport hazard class : 8
Packing group : II
Labels : 8 (3)
Environmental hazards : no

Special precautions for user : none

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word : DANGER!

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Hazard statements : Causes substantial but temporary eye injury.
Harmful if absorbed through skin.
May be fatal if inhaled.
Corrosive. Causes skin burns.
Corrosive. Causes irreversible eye damage.
This pesticide is toxic to fish.

EPA No. : 6836-51

WHMIS Classification : E: Corrosive Material
B2: Flammable liquid

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations**Massachusetts Right To Know**

Ethanol 64-17-5

Pennsylvania Right To Know

Ethanol 64-17-5

New Jersey Right To Know

Ethanol 64-17-5

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer. WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ethanol 64-17-5

The components of this product are reported in the following inventories:

- : This product can only be used commercially in the EPA registered application(s) noted on the product label.
- : This product is regulated under the following section(s) of the Code of Federal Regulations (CFR) as an incidental food additive:
 - : 21 CFR 178.1010

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Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Revision Date : 09/15/15

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.