2-hydroxyethyl acrylate

Safety Data Sheet

According to Regulation (EU) 2015/830

Date of issue: 6/7/2018 Revision date: 5/13/2020 Version: 2.0

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

1.1. Product identifier

Product form : Substance

Trade name : 2-hydroxyethyl acrylate

CAS-No. : 818-61-1

Registration number : 01-2119459345-34-****

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

1.2.1. Relevant identified uses

Use of the substance/mixture : For more detail information, please refer to Annex.

1.2.2. Uses advised against

Restrictions on use : No information available

1.3. Details of the supplier of the safety data sheet

OR: REACH24H Consulting Group

Address: Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland

Email: reach@reach24h.com

1.4. Emergency telephone number

Emergency number : +86-519-68193722

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (dermal), Category 3	H311
Skin corrosion/irritation, Category 1B	H314
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No information available.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS06 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H311 - Toxic in contact with skin.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H400 - Very toxic to aquatic life.

Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Hydroxyethyl acrylate	(CAS-No.) 818-61-1 (EC-No.) 212-454-9 (EC Index-No.) 607-072-00-8	98.7	Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-Hydroxyethyl acrylate	(CAS-No.) 818-61-1 (EC-No.) 212-454-9 (EC Index-No.) 607-072-00-8	(C >= 0.2) Skin Sens. 1, H317

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing. Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Seek medical attention immediately.

First-aid measures after skin contact : Rinse immediately with plenty of water (for at least 15 minutes). Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Drink plenty of water. Call a physician immediately.

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

Symptoms/effects after skin contact : Toxic in contact with skin. Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide (CO_2).

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Reactivity in case of fire : Hazardous polymerization may occur if exposure to fire conditions.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Protective measures, rules of conduct.

6.1.1. For non-emergency personnel

Protective equipment : Users of breathing apparatus must be trained.

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Do not breathe dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : For a large spillage, contain the spillage by bunding. Recover small spills with a suitable absorbent, like diatomaceous earth.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Precautions for safe handling : Keep good industrial hygiene. Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Equipment cleaning and maintenance. Avoid high temperatures. Protect from heat and direct sunlight.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)
No information available.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters

2-Hydroxyethyl acrylate (818-61-1)		
Denmark	Grænseværdie (langvarig) (mg/m³)	5 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	1 ppm
Estonia	OEL TWA (mg/m³)	5 mg/m³
Estonia	OEL TWA (ppm)	1 ppm
Estonia	OEL STEL (mg/m³)	10 mg/m³
Estonia	OEL STEL (ppm)	2 ppm
Latvia	OEL TWA (mg/m³)	0.5 mg/m³
Lithuania	IPRV (mg/m³)	5 mg/m³
Lithuania	IPRV (ppm)	1 ppm
Lithuania	TPRV (mg/m³)	10 mg/m³
Lithuania	TPRV (ppm)	2 ppm
Sweden	nivågränsvärde (NVG) (mg/m³)	5 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	1 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	10 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	2 ppm
Russian Federation	OEL TWA (mg/m³)	0.5 mg/m³ (vapor)

2-hydroxyethyl acrylate (818-61-1)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	2.4 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	1.2 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.0355 mg/l
PNEC aqua (marine water)	0.00355 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.0355 mg/kg dwt
PNEC sediment (marine water)	0.00355 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.00147 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: No data available.
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: < -60 °C
Freezing point	: No data available
Boiling point	: 200.32 °C at 1013.25 hpa
Flash point	: 101 °C (cc)
Critical temperature	: No data available
Auto-ignition temperature	: 370 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flamamble
Vapour pressure	: 0.1 hPa at 20 °C
Vapour pressure at 50 °C	: No data available
Critical pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.0981
Relative density of saturated gas/air mixture	: No data available
Density	: 1.0981 g/cm^3 at 30 °C
Relative gas density	: No data available
Solubility	: Water: miscible at 20 °C
Log Pow	: -0.17 at 25 °C
Log Kow	: No data available
Viscosity, kinematic	: 9.608 mm²/s
Viscosity, dynamic	: 10.55 mPa.s at 29.9 °C
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing.
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available
Surface tension	: Not applicable / not surface active

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

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
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No information available.

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Dermal: Toxic in contact with skin.

Acute toxicity (inhalation) : Not classified

2-hydroxyethyl acrylate (818-61-1)	
LD50 dermal rabbit	298 mg/kg

Skin corrosion/irritation : Corrosive, causes severe skin burns.
pH: No data available

Serious eye damage/irritation : Causes severe eye damage
pH: No data available

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Not classified

12.2. Persistence and degradability

2-hydroxyethyl acrylate (818-61-1)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

2-hydroxyethyl acrylate (818-61-1)	
Log Pow	-0.17 at 25 °C
Log Kow	No data available
Bioaccumulative potential	There is no bioaccumulation.

2-Hydroxyethyl acrylate (818-61-1)	
BCF fish 1	No information available.

12.4. Mobility in soil

2-hydroxyethyl acrylate (818-61-1)	
Ecology - soil	No information available.

12.5. Results of PBT and vPvB assessment

2-hydroxyethyl acrylate (818-61-1)
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

12.6. Other adverse effects

Other adverse effects : No information available.

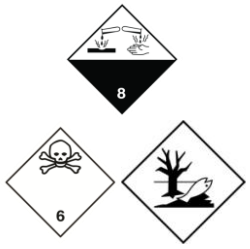
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 2922	UN 2922	UN 2922	UN 2922	UN 2922
14.2. UN proper shipping name				
CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate)	CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate)	Corrosive liquid, toxic, n.o.s. (2-Hydroxyethyl acrylate)	CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate)	CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate)
Transport document description				
UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate), 8 (6.1), II, (E), ENVIRONMENTALLY HAZARDOUS	UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate), 8 (6.1), II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 2922 Corrosive liquid, toxic, n.o.s. (2-Hydroxyethyl acrylate), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS	UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS	UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (2-Hydroxyethyl acrylate), 8 (6.1), II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : CT1
Special provisions (ADR) : 274
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T7

Portable tank and bulk container special provisions (ADR)	: TP2
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Hazard identification number (Kemler No.)	: 86
Orange plates	: 
Tunnel restriction code (ADR)	: E
EAC code	: 2X
APP code	: B

Transport by sea

Special provisions (IMDG)	: 274
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes. Toxic if swallowed, by skin contact or by inhalation.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8P

Inland waterway transport

Classification code (ADN)	: CT1
Special provisions (ADN)	: 274, 802
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EP, TOX, A
Ventilation (ADN)	: VE02
Number of blue cones/lights (ADN)	: 2

Rail transport

Classification code (RID)	: CT1
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T7
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2

Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 86

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
15.1.1. EU-Regulations
No REACH Annex XVII restrictions

2-hydroxyethyl acrylate is not on the REACH Candidate List

2-hydroxyethyl acrylate is not on the REACH Annex XIV List

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations
Germany

Reference to AwSV	: Water hazard class (WGK) 3, significant hazard to waters (Classification according to AwSV; ID No. 1724)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: The substance is not listed

Denmark

Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment
A chemical safety assessment has been carried out

SECTION 16: Other information
Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level

NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Data sources : ECHA reference.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H- and EUH-statements:	
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.

SDS EU (REACH Annex II)

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