## 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)

Hazard statements (CLP)

: Danger

: 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

: P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P273 - Avoid release to the environment.

 ${\tt P280-Wear\ protective\ gloves/protective\ clothing/eye\ protection/face\ protection}.$ 

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

EN (English) 1/9

## Safety Data Sheet

According to Regulation (EU) 2015/830

## **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.

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

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.

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and First-aid measures after eye contact

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

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

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<sub>2</sub>).

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

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

breathing apparatus. Complete protective clothing.

#### **SECTION 6: Accidental release measures**

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

: Protective measures, rules of conduct. General measures

## 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.

5/13/2020 (Version: 2.0) EN (English) 2/9

## Safety Data Sheet

According to Regulation (EU) 2015/830

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.

2.4 mg/m<sup>3</sup>

0.0255 mg/l

## 7.3. Specific end use(s)

No information available.

## **SECTION 8: Exposure controls/personal protection**

	8.1. Control parameters
I	

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)

Long-term - systemic effects, inhalation

<b>DNEL</b>	/DMEL (	(Workers

DNEL/DMEL (General	populati	ion)	

Long-term - systemic effects, inhalation	1.2 mg/m <sup>3</sup>

#### PNEC (Water) DNEC agua (freshwater)

FINEC aqua (ITestiwater)	0.0333 Hig/i
PNEC aqua (marine water)	0.00355 mg/l

## **PNEC (Sediment)**

PNEC sediment (freshwater)		0.0355 mg/kg dwt	
	PNEC sediment (marine water)	0.00355 ma/ka dwt	

#### **PNEC (Soil)**

PNEC soil 0.00147 mg/kg dwt

#### **PNEC (STP)**

PNEC sewage treatment plant 10 mg/l

5/13/2020 (Version: 2.0) EN (English) 3/9

## Safety Data Sheet

According to Regulation (EU) 2015/830

#### 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 :  $< -60 \, ^{\circ}\text{C}$ 

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 : 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/cm³ at 30 °C

Relative gas density : No data available

Solubility : Water: miscible at 20 °C

Log Pow : -0.17 at 25 °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

5/13/2020 (Version: 2.0) EN (English) 4/9

## Safety Data Sheet

According to Regulation (EU) 2015/830

## **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.		

## Safety Data Sheet

According to Regulation (EU) 2015/830

## 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

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 shippin	g 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 descr	ription					
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/ENVIRONME NTALLY 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)		
8	8	8	8	8		
14.4. Packing group						
II	П	II	II	II		
14.5. Environmental haz	zards					
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): CT1Special provisions (ADR): 274Limited quantities (ADR): 11Excepted quantities (ADR): E2

Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions : T7

(ADR)

## Safety Data Sheet

According to Regulation (EU) 2015/830

Portable tank and bulk container special provisions

(ADR)

Tank code (ADR): L4BNVehicle for tank carriage: ATTransport category (ADR): 2

Special provisions for carriage - Loading,

unloading and handling (ADR)

Hazard identification number (Kemler No.) : 86

Orange plates :

86 2922

: CV13, CV28

: TP2

Tunnel restriction code (ADR) : E
EAC code : 2X
APP code : B

Transport by sea

: 274 Special provisions (IMDG) Limited quantities (IMDG) :11 Excepted quantities (IMDG) : E2 : P001 Packing instructions (IMDG) IBC packing instructions (IMDG) : IBC02 : T7 Tank instructions (IMDG) Tank special provisions (IMDG) : TP2 EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-B Stowage category (IMDG) : B : SW2 Stowage and handling (IMDG)

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 : 851 PCA packing instructions (IATA) PCA max net quantity (IATA) : 1L CAO packing instructions (IATA) : 855 : 301 CAO max net quantity (IATA) : A3, A803 Special provisions (IATA) : 8P ERG code (IATA)

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 : TP2

(RID)

Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 2

## Safety Data Sheet

According to Regulation (EU) 2015/830

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. BlmSchV (Hazardous Incident Ordinance)

**Netherlands** 

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Borstvoeding

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Ontwikkeling

: The substance is not listed: The substance is not listed

: The substance is not listed

: The substance is not listed

: 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	

## Safety Data Sheet

According to Regulation (EU) 2015/830

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