SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 as amended by Commission Regulation (EU) 2020/878 and Regulation (EC) No. 1272/2008

Issuing Date 20-Sep-2023 Revision Date 20-Sep-2023 Revision Number 1

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

1.1. Product identifier

Product Code(s) 4151101

Product Name Reducer H

Synonyms None

Pure substance/mixture Substance

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

Recommended use Viscosity reducer

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

<u>Importer</u> <u>Supplier</u>

REACH OR: CAPLINQ Europe Taiyo America, Inc. BV 2675 Antler Drive Industrieweg 15E Carson City, NV 89701

1566JN Assendelft TEL: 775-885-9959 (M-F, 8 AM - 4 PM, Pacific Time Zone)

The Netherlands +31208932224

For further information, please contact

E-mail address SDSinfo@taiyo-america.com

1.4. Emergency telephone number

Emergency telephone +1-813-248-0585 International - product safety issues (24 hours; in most major languages)

+1-800-255-3924 Within U.S.A. only (24 hours)

Emergency telephone - §45 - (EC)1	272/2008
Europe	112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

oldssmediterraceording to Regulation (20) No. 1272/2000 [6)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitisation	Category 1 - (H317)

2.2. Label elements

Contains 2-Hydroxyethyl methacrylate



Signal word Warning

Hazard statements

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

Precautionary Statements - EU (§28, 1272/2008)

P261 - Avoid breathing vapors or mists.

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P280 - Wear protective gloves and eye/face protection.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

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

2.3. Other hazards

May be harmful in contact with skin.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Endocrine Disruptor InformationThis product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
2-Hydroxyethyl methacrylate 868-77-9	100	No data available	(607-124-00-X) 212-782-2	L - J	-	-	-

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
			hour - dust/mist -	hour - vapour - mg/L	hour - gas - ppm
			mg/L		
2-Hydroxyethyl	5050	3003	No data available	No data available	No data available
methacrylate					
868-77-9					

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

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. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and

persists.

Skin contact May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a

doctor. Wash off immediately with soap and plenty of water for at least 15 minutes.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce

vomiting. Call a doctor.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation.

Effects of Exposure See Section 11 for additional Toxicological Information.

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

Note to doctorsMay cause sensitisation in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO2, alcohol-resistant foam or water spray.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

Product is or contains a sensitiser. May cause sensitisation by skin contact. The product may undergo spontaneous polymerization at high temperatures. Polymerization is

exothermic and may cause damage to the container and/or release of thermal

decomposition products.

Hazardous combustion products Carbon oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak. Avoid breathing vapours or mists.

Other information Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled

containers. Clean contaminated surface thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Avoid breathing vapours or mists. Empty

containers may contain hazardous residues.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

product. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep/store only in

original container. Keep in properly labelled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep at a temperature not exceeding 25 °C. Store away from incompatible materials. However, if the permissible storage time or storage temperature are greatly exceeded the product may polymerize. Tanks should preferably contain no dead spaces where the product can be trapped and polymerize. Internal structural members should therefore be kept to a minimum and tanks should be welded. Storage tank vents, especially those fitted with flame arrestors, should be inspected regularly for polymer fouling which can arise from vapor phase polymerization. This product contains a peroxidation inhibitor. To maintain inhibitor activity,

(M)SDS Number UL-TYO-116

oxygen must not be eliminated from the atmosphere above the product.

Storage class (TRGS 510) LGK 10.

7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
2-Hydroxyethyl methacrylate	-	-	skin sensitizer	-	-
868-77-9					
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
2-Hydroxyethyl	-	-	-	-	J+
methacrylate					TWA: 20 mg/m ³
868-77-9					
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
2-Hydroxyethyl	-	-	-	TWA: 2 ppm	-
methacrylate				TWA: 11 mg/m ²	
868-77-9				A+	
				STEL: 4 ppm	
				STEL: 16.5 mg/n	1 ³
Chemical name	S	weden	Switzerland		Jnited Kingdom
2-Hydroxyethyl methacry	/late	-	S+		-
868-77-9					

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
2-Hydroxyethyl methacrylate 868-77-9	-	1.3 mg/kg bw/day [4] [6]	4.9 mg/m³ [4] [6]

Notes

[4] Systemic health effects.

[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
2-Hydroxyethyl methacrylate 868-77-9	0.83 mg/kg bw/day [4] [6]	-	2.9 mg/m³ [4] [6]

Notes

[4] Systemic health effects.

[6] Long term.

Predicted No Effect Concentration (PNEC)

Γ	Chemical name	Freshwater	Freshwater	Marine water	Marine water	Air
ı			(intermittent release)		(intermittent release)	
	2-Hydroxyethyl methacrylate 868-77-9	0.482 mg/L	1 mg/L	0.482 mg/L	1 mg/L	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
2-Hydroxyethyl methacrylate 868-77-9	3.79 mg/kg sediment dw	3.79 mg/kg sediment dw	10 mg/L	0.476 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard

EN 166.

Hand protection Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

product. Avoid contact with skin, eyes or clothing.

Environmental exposure controls Prevent product from entering drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Clear, viscous liquid

Physical state
Colour
Colour
Colourless
Characteristic

Odour threshold No information available

 Property
 Values
 Remarks • Method

 Melting point / freezing point
 No data available

Melting point / freezing pointNo data availableInitial boiling point and boiling rangeNo data availableFlammabilityNo data available

Flammability Limit in Air

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point 106 °C

Autoignition temperature No data available **Decomposition temperature** No data available No data available pH (as aqueous solution) No data available Kinematic viscosity No data available **Dynamic viscosity** No data available Water solubility No data available Solubility(ies) No data available No data available Partition coefficient No data available Vapour pressure

Relative density 1.07

Bulk densityNo data availableLiquid DensityNo data availableRelative vapour densityNo data available

Particle characteristics

Particle SizeNo data availableParticle Size DistributionNo data available

9.2. Other information

VOC content 0 %

9.2.1. Information with regards to physical hazard classes Not applicable

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions. Periodic air sparging in storage will assist long term

stability.

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerisation Polymerizes readily unless inhibited. Polymerization is highly exothermic and, if not

controlled, may be violent. Hazardous polymerisation may occur upon depletion of inhibitor.

Hazardous polymerization may occur if exposed to high temperatures.

10.4. Conditions to avoid

Conditions to avoid Protect from moisture. Exposure to light. Heat. Incompatible materials. This product

contains a peroxidation inhibitor. To maintain inhibitor activity, oxygen must not be

eliminated from the atmosphere above the product.

10.5. Incompatible materials

Incompatible materials Amines. Acids. Alkalis. Free radical initiators. Peroxides. Reducing agents. Strong oxidising

agents

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO2). Irritating fumes.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation May cause irritation of respiratory tract.

Eye contact Causes serious eye irritation. May cause redness, itching, and pain.

Skin contact May cause sensitisation by skin contact. Repeated or prolonged skin contact may cause

allergic reactions with susceptible persons. Causes skin irritation. May be harmful in contact

with skin.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-Hydroxyethyl methacrylate	= 5050 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicityBased on available data, the classification criteria are not met.

STOT - single exposureBased on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazardBased on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to	Crustacea
			microorganisms	
2-Hydroxyethyl methacrylate 868-77-9	-	LC50: 213 - 242mg/L (96h, Pimephales promelas) LC50: =227mg/L (96h, Pimephales promelas)	2	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient	
2-Hydroxyethyl methacrylate	0.42	

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
2-Hydroxyethyl methacrylate	The substance is not PBT / vPvB
868-77-9	

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

Waste codes / waste designations

according to EWC / AVV

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application

for which the product was used.

SECTION 14: Transport information

IMDGNot regulated14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot applicable14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None

14.7 Maritime transport in bulk according to IMO instruments

No information available

<u>RID</u>		Not regulated
14.1	UN number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not applicable

14.6 Special Precautions for Users

Special Provisions None

ADR
14.1 UN number or ID number
14.2 UN proper shipping name
14.3 Transport hazard class(es)
14.4 Packing group
14.5 Environmental hazards

Not regulated
Not regulated
Not applicable
Not applicable

14.6 Special Precautions for Users

Special Provisions None

IATANot regulated14.1UN number or ID numberNot regulated14.2UN proper shipping nameNot regulated14.3Transport hazard class(es)Not regulated14.4Packing groupNot applicable14.5Environmental hazardsNot applicable

14.6 Special Precautions for Users

Special Provisions None Note: None

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
2-Hydroxyethyl methacrylate	RG 65
868-77-9	

Germany

Water hazard class (WGK) slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
2-Hydroxyethyl methacrylate - 868-77-9	75.	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

Legend

ATE: Acute Toxicity Estimate

SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value * Skin designation

SCBA Self-contained breathing apparatus

Classification procedure		
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used	
Acute oral toxicity	Calculation method	
Acute dermal toxicity	Calculation method	
Acute inhalation toxicity - gas	Calculation method	
Acute inhalation toxicity - vapour	Calculation method	
Acute inhalation toxicity - dust/mist	Calculation method	
Skin corrosion/irritation	Calculation method	
Serious eye damage/eye irritation	Calculation method	
Respiratory sensitisation	Calculation method	
Skin sensitisation	Calculation method	
Mutagenicity	Calculation method	
Carcinogenicity	Calculation method	
Reproductive toxicity	Calculation method	
STOT - single exposure	Calculation method	
STOT - repeated exposure	Calculation method	
Acute aquatic toxicity	Calculation method	
Chronic aquatic toxicity	Calculation method	
Aspiration hazard	Calculation method	
Ozone	Calculation method	

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Issuing Date 20-Sep-2023

Revision Date 20-Sep-2023

Revision Note Initial Release.

This safety data sheet complies with the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006

Disclaimer

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.

End of Safety Data Sheet

(M)SDS Number UL-TYO-116