

according to 1907/2006/EC, Article 31, (Commission Regulation (EU) 2020/878)

Trade name: Et-VC®

Version: 11

Revision: 2023.10.12

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 <u>Product identifier</u> Trade name CAS number

Et-VC[®] 86404-04-8

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

Recommended Use	SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU21 Consumer uses: Private households/general public/
Uses advised against Product category Process category	consumers SU22 Professional uses: Use as a cosmetic ingredient Not determined Not determined Not determined

1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier CORUM INC. 6FL., No.360, Ruei Guang Rd., Neihu Dist., Taipei 114729, Taiwan

Further information obtainable from marketing.support@corum.com.tw

1.4 <u>Emergency telephone number</u> Company phone number

CORUM Tel. 886-2-8751-6060 Fax. 886-2-8751-6363

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008Eye Irrit. 2H319 Causes serious eye irritation.

2.2 Label elements

Label according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation. Hazard pictograms



 GHS07

 Signal word

 Warning

 Hazard statements

 H319 Causes serious eye irritation.

 Precautionary statements

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

 P264
 Wash thoroughly after handling.

 P305+P351+P338
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



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

2.3 Other hazards

Results of PBT and vPvB assessment PBT:

Based on available data, the ingredients of this mixture do not meet the PBT criteria (not PBT) according to (EC) 1907/2006, Annex XIII.

vPvB:

Based on available data, the ingredients of this mixture do not meet the vPvB criteria (not vPvB) according to (EC) 1907/2006, Annex XIII.

Determination of endocrine-disrupting properties

The product does not contain ingredients with endocrine-disrupting properties for humans.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 <u>Substances</u>

Composition/information on ingredients

Name	Chemical name	Identification	Classification	SCLs, M-Factors	%
COMPONENT	•				
3-O-Ethyl Ascorbic Acid	L-Ascorbic acid, 3-O-ethyl-	(CAS No.) 86404-04-8 (EC No.) 617-849-3	Eye Irrit. 2 H319	-	100%

3.2 <u>Mixtures</u>

Not applicable

SECTION 4: FIRST AID MEASURES

4.1 <u>Description of first aid measures</u>

General information	Remove contaminated clothing. Seek medical treatment.
After inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical treatment.
After skin contact	Immediately wash with soap and rinse thoroughly. Cover the irritated skin with an emollient. If skin irritation continues, consult a doctor.
After eye contact	Check and remove any contact lenses. Immediately flush eyes with copious amounts of water for at least 15 minutes. Cold water must be used. Seek medical treatment.
After swallowing	Do not induce vomiting; call for medical help immediately. Do not give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed



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Symptoms

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians

No further relevant information available.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media 5.1

Suitable extinguishing media Extinguishing powder Do not use water. Fight larger fires with water spray or alcohol resistant foam. Unsuitable extinguishing media Water with full iet

5.2 Special hazards arising from the substance or mixture In case of fire, the following can be released: Carbon monoxide (CO) and Carbon dioxide (CO₂)

5.3 Advice for firefighters

Protective equipment: Wear protective clothing and glasses. Wear self-contained breathing apparatus with facepiece.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures 6.1

Avoid formation of dust. Use respiratory protective device against the effects of fumes/dust/aerosol. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Make sure only trained personnel are allowed to carry out the cleaning work.

6.2 **Environmental precautions** Do not allow product to reach sewage system or any water course. In case of seepage into the ground inform responsible authorities.

6.3 Methods and material for containment and cleaning up Pick up mechanically using appropriate tools. Dispose of the material collected according to regulations. Use warm water to clean the affected area carefully.

6.4 **Reference to other sections** No dangerous substances are released. See Section 7 for information on safe handing. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precaution for safe handing

Advice on safe handling

Keep receptacles tightly sealed. Keep away from heat and direct sunlight.



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		Ensure good ventilation/exhaustion at th Prevent formation of dust.	e workplace.
	Information about fire - and explosi	on protection:	
		No special measures required.	
7.2	Conditions for safe storage, includi	ng any incompatibilities	
	Storage conditions	Protect from light, heat and moisture. Store in tightly closed container at 25°C. vacuum sealed until use. If material is to bag opening, let it sit for about 10 - 30 m contents after opening. If the contents a reseal carefully and store in a dry place.	o hard to break upon ninutes. Use the entire re only partly used,
	Incompatible materials	None known based on information suppl	ied.
	Storage class (VbF)	No	
	Requirements to be met by storeroo		
	Information about storage in comm	No special measures required.	
	Information about storage in comm	Not required	
	Further information about storage of		
	_	None	
7.3	Specific end use(s)	Cosmetic products	

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	Control parameters		
	Ingredients with limit values that require monitoring at the workplace		
	Exposure limits	The product does not contain relevant quantities of materials with critical values that have to be monitored at the workplace.	
	DNEL	Not determined	
	PNEC	Not determined	
	Additional information	The valid lists during this review were used as a basis.	
8.2	Exposure controls		
	Appropriate engineering controls	Ensure that eyewash and safety showers are in close proximity to work location. Good general ventilation is recommended for handling the product. No further data; see section 7.	
	Individual protection measures, suc	ch as personal protective equipment	
	General protective and hygienic me	asures	
		Avoid contact with the eyes and skin. Wash hands before breaks and at the end of work.	
	Personal protective equipment		
	Respiration protection	Not necessary if room is well-ventilated.	



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Hands protection	Protective gloves	
	product/the substance/the	contact use protective gloves.
Material of gloves	Chemical resistant gloves (EN374) The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. For the permanent contact gloves made of the following materials are suitable: Natural rubber, NR PVC gloves Neoprene gloves Nitrile rubber, NBR Fluorocarbon rubber (Viton) PVA gloves Butyl rubber, BR	
Eye protection	Tightly sealed gog	

General protective measure General hygiene measure

Environmental exposure controls

Avoid contact with the eyes and skin. The usual precautionary measures are to be adhered to when handing chemicals.

No further relevant information available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Crystalline powder Color White Odor Characteristic	
Oder threshold Not determined	
<u>Property</u>	
pH value (3% aq.sol.) 3.5-5.0	
Melting point/Melting range 112-116 °C (OECD 102 capillary method)	
Boiling point/Boiling range 214 °C (OECD 103, Siwoloboff)	
Flash point >93°C	
Flammability (solid, gaseous) Not flammable solid (burning time 200 mm>240s	;)
None	
Ignition temperature >400 °C	
Decomposition temperature Not determined	
Self-igniting Product is not self-igniting.	
Danger of explosionProduct does not present an explosion hazard.	
Explosion limit	
Lower Not determined	



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	Upper	Not determined	
	Oxidizing properties	Not determined	
	Explosive properties	Not determined	
	Vapor pressure at 25 °C	3.1*10-7 Pa (Grain method, EPISU	ITE)
	Vapor density at 20 °C	Not determined	
	Relative density	1.41 g/cm ³ (OECD 109, pycnomete	er)
	Evaporation rate	Not determined	
	Solubility (water 20 °C)	778 g/l (Flask method)	
	Partition coefficient		
	(n-octanol/water at 25 °C)	-0.71 log POW (Flask shake metho	od)
	Kinematic viscosity	Not applicable	
	Dynamic viscosity	Not determined	
• •	Other information		
9.2	Other information Surface tension	$(0.0 \text{ mN/m} \text{ at } 20^{\circ}\text{C} \text{ 1 m/l})$	
	Dissociation constant	69.6 mN/m at 20 °C, 1 g/l Not determined	
		The mean value size of >50% of the	o particlas is 05.01 um
	Granulometry	The mean value size of >50% of the	e particles is 95.91 µm.
	Information with regard to physica	al hazard classes	
	Explosives	Void	
	Flammable Gases and Chemically	Unstable Gases	
		Void	
	Flammable Aerosols	Void	
	Oxidising Gases	Void	
	Gases Under Pressure	Void	
	Flammable Liquids	Void	
	Flammable Solids	Void	
	Self-reactive Substances and Mixt		
		Void	
	Pyrophoric Liquids	Void	
	Pyrophoric Solids	Void	
Self-heating Substances and Mixtures			
	Substances and Mixtures which in	Void contact with water emit flammable	02606
	Substances and mixtures which in	Void	yases
	Oxidising Liquids	Void	
	Oxidising Solids	Void	
	Organic Peroxides	Void	
	Substances and Mixtures corrosiv		
		Void	
	Desensitized Explosives	Void	
	Decentratized Explosites		
	SECTION 40		1

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No further relevant information available.

10.2 <u>Chemical stability</u> The product is stable under ordinary condition. Thermal decomposition/conditions to be avoided No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid



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Heat, fire, moisture and incompatible substances

10.5 <u>Incompatible material</u> No further relevant information available.

10.6 <u>Hazardous decomposition products</u> No dangerous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Name	3-O-Ethyl Ascorbic Acid CAS:86404-04-8	
Acute toxicity LD/LC50 values relevant for classification	*Acute oral toxicity, LD50, 5900 mg/kg bw, rat (QSAR calculation, Consensus method)	
Skin corrosion/irritation	Non irritant (dilution at 2%)	
Serious eye damage/irritation	Moderately irritant (dilution at 3%)	
Respiratory tract	Not determined	
Respiratory/skin sensitization	Hypoallergenic (pure active Et-VC [®]) *Sensitisation determined by read-across and QSAR Calculations.	
Toxicokinetics, metabolism and distribution	Not determined	
Repeated dose toxicity	Not determined	
Germ Cell mutagenicity	Not Genotoxic Non mutagenic and non pro-mutagenic	
Carcinogenicity	Based on available data, the classification criteria are not met.	
Reproductive toxicity	Based on available data, the classification criteria are not met.	
STOT-single exposure	Based on available data, the classification criteria are not met.	
STOT-repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	*Based on physical form, product is not expected to pose an aspiration hazard.	

*from ECHA webpage registration data

11.2 Information on other hazards

Endocrine disrupting properties Phototoxicity Cytotoxicity

Substance is not listed. No phototoxic potential. Negligible

SECTION 12: ECOLOGICAL INFORMATION

Name	3-O-Ethyl Ascorbic Acid CAS:86404-04-8	
12.1 Toxicity Aquatic toxicity	*Acute toxicity, EC50 (72hr): >100 mg/l (Algae, OECD 201, growth rate) *Other, EC50 (48 hr): >100 mg/l (Daphnia, OECD 202 Daphnia sp	
12.2 Persistence and degradability	acute immobilisation test) *Inherently biodegradable, Degrades 35%, 28 days (30% 10-days window) in the manometric respirometry test (OECD 301F)	
12.3 Bioaccumulative potential	*Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.	
12.4 Mobility in soil	*Miscible in water, it is expected to be mobile within the environment. *Adsorption to solid soil is not expected.	



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12.5 Results of PBT and vPvB	PBT: Not applicable	
assessment	vPvB: Not applicable	
12.6 Endocrine disrupting	The product does not contain subs	stances with endocrine disrupting
properties	properties.	
	Other ecological indications:	
	General indications:	
12.7 Other adverse effects	Water hazard class 1 (D) (self-clas	ssification):
	little dangerous for water	
	Do not allow concentrated substar	nces, i.e. large quantities, to reach

*from ECHA webpage registration data

SECTION 13: DISPOSAL CONSIDERATIONS

groundwater, watercourses or sewage systems.

13.1 <u>Waste treatment methods</u> Recommendation European waste catalogue HP4

Smaller quantities can be disposed of with household waste. Not applicable Irritant - skin irritation and eye damage

13.2 <u>Uncleaning packaging</u> Recommendation

Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

14.1	<u>UN number or ID number</u> ADR/RID ADN IMDG IATA	Not applicable Not applicable Not applicable Not applicable
14.2	<u>UN proper shipping name</u> ADR/RID ADN IMDG IATA	Not applicable Not applicable Not applicable Not applicable
14.3	<u>Transport hazard class(es)</u> ADR/RID ADN IMDG IATA	Not applicable Not applicable Not applicable Not applicable
14.4	<u>Packing group</u> ADR/RID ADN IMDG IATA	Not applicable Not applicable Not applicable Not applicable
14.5	<u>Environmental hazard</u> Marine pollutant	No
14.6	Special precautions for user Special precaution for user	Not applicable



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- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable
- 14.8 ICAO/IATA DGR Not regulated as dangerous good
- Maritime transport in bulk according to IMO instruments
 Not applicable

 UN "Model Regulation"
 Not applicable

SECTION 15: REGULATORY INFORMATION

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

Name	3-O-Ethyl Ascorbic Acid CAS:86404-04-8
Inventory - United States - Toxic Substances Control Act (TSCA)	Ν
Inventory - Canada - Domestic Substances List (DSL)	Ν
Inventory - Canada Non-Domestic Substances List (NDSL)	N
ECHA Inventory of substances	Y
Japan Existing and New Chemical Substances (ENCS)	N
Inventory of Existing Chemical Substances in China (IECSC)	Y
Korean Existing and Evaluated Chemical Substances (KECL)	N
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	N
Australian Inventory of Industrial Chemicals (AIIC)	Y
New Zealand Inventory of Chemicals	Y
TCSI - Taiwan Chemical Substance Inventory	Y
OECD - List of High Production Volume Chemicals	N

Y : listed, N : not listed, E : exempted

Directive 2004/42/EC Seveso category Substance is not listed.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II Substance is not listed.

Regulation (EU) 2019/1148 Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)) Substance is not listed. Annex II - REPORTABLE EXPLOSIVES PRECURSORS Substance is not listed.

Regulation (EC) No 273/2004 on drug precursors Substance is not listed.



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Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors Substance is not listed.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer – ANNEX I (Ozonedepleting potential) Substance is not listed.

National regulations Other regulations, limitations and prohibitive regulations Not determined

Substances of very high concern (SVHC) according to REACH, Article 59(10) Substance is not listed.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

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Abbreviations and acronyms

NOAEL: Non Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level NOEC: No Observed Effect Concentration GHS: Globally Harmonized System of Classification and Labeling Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstract Service (division of the American Chemical Society) VbF: Ordinance on the storage of combustible liquids, Austria DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent SVHC: Substances of Very High Concern PBT: Persistent Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative STOT: Specific Target Organ Toxicity ADR: Agreement on Dangerous Goods by Road RID: Regulations concerning the Intl Transport of Dangerous Goods by Rail ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways IMDG: International Maritime Dangerous Goods IATA: International Air Transport Association Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Sources

Own data from manufacture Chemical safety report according to REACH registration dossier