

# Safety data sheet

according to 1907/2006/EC, Article 31

Trade name: **Et-VC™**

Version: 7

Revision: 2021.12.10

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

### 1.1 Product identifier

Trade name	<b>Et-VC™</b>
CAS number	86404-04-8

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

<b>Recommended Use</b>	SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU21 Consumer uses: Private households/general public/consumers SU22 Professional uses
<b>Uses advised against</b>	Not determined
<b>Product category</b>	Not determined
<b>Process category</b>	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 11492, Taiwan  
**Further information obtainable from**  
[marketing.support@corum.com.tw](mailto:marketing.support@corum.com.tw)

### 1.4 Emergency telephone number

<b>Company phone number</b>	CORUM Tel. 886-2-8751-6060 Fax. 886-2-8751-6363
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## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS07 Eye Irrit. 2	H319 Causes serious eye irritation.
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### 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 <b>Signal word</b>
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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.

P302+P352 IF ON SKIN: Wash with plenty of 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.

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

**2.3 Other hazards****Results of PBT and vPvB assessment**

Not applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Chemical characterization:** Substances**3.2 Composition/information on ingredients**

Chemical Name	CAS No.	EC No.
3-O- Ethyl Ascorbic Acid	86404-04-8	617-849-3

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures****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.

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

**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

#### 5.1 Extinguishing media

##### **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 jet

#### 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 (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

Wear protective clothing and glasses.

Wear self-contained breathing apparatus with facepiece.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

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 handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## SECTION 7: HANDLING AND STORAGE

### 7.1 Precaution for safe handling

#### Advice on safe handling

Keep receptacles tightly sealed.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of dust.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Protect from contacting with light, heat and moisture.  
Store in tightly closed container at 25°C. Keep the pack sealed until it is to be used. It is best to use the entire contents of the pack after opening. If the contents are only partly used, reseal carefully and store in a dry place.

#### Incompatible materials

None known based on information supplied

#### Storage class (VbF)

No

### 7.3 Specific end use(s)

No further relevant information available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 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

#### Personal protective equipment

##### Respiration protection

Not necessary if room is well-ventilated

##### Hands protection

Protective gloves



The glove material has to be impermeable and resistant to the product/the substance/the preparation.  
For prolonged or repeated contact use protective gloves.  
Chemical resistant gloves (EN374)

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**Material of gloves**

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 goggles

**General protective measure**

Avoid contact with the eyes and skin.

**General hygiene measure**

The usual precautionary measures are to be adhered to when handling chemicals.

**Environmental exposure controls**

No further relevant information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties**

<b>Physical State</b>	Powder
<b>Appearance</b>	Crystalline powder
<b>Color</b>	White
<b>Odor</b>	Characteristic
<b>Odor threshold</b>	Not determined
<b>Property</b>	
<b>pH value (3% aq.sol.)</b>	3.5-5.0
<b>Melting point/Melting range</b>	112-116 °C (OECD 102 capillary method)
<b>Boiling point/Boiling range</b>	214 °C (OECD 103, Siwoloboff)
<b>Flash point</b>	>93°C
<b>Flammability (solid, gaseous)</b>	Not flammable solid (burning time 200 mm>240s) None
<b>Ignition temperature</b>	>400°C
<b>Decomposition temperature</b>	Not determined
<b>Self-igniting</b>	Product is not self-igniting.
<b>Danger of explosion</b>	Product does not present an explosion hazard.
<b>Explosion limit</b>	
<b>Lower</b>	Not determined
<b>Upper</b>	Not determined
<b>Oxidizing properties</b>	Not determined
<b>Explosive properties</b>	Not determined
<b>Vapor pressure at 25 °C</b>	3.1*10 <sup>-7</sup> Pa (Grain method, EPISUITE)
<b>Vapor density at 20 °C</b>	Not determined
<b>Relative density</b>	1.41 g/cm <sup>3</sup> (OECD 109, pycnometer)

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<b>Evaporation rate</b>	Not determined
<b>Solubility (water 20 °C)</b>	778 g/l (Flask method)
<b>Partition coefficient (n-octanol/water at 25 °C)</b>	-0.71 log POW (Flask shake method)
<b>Kinematic viscosity</b>	Not applicable
<b>Dynamic viscosity</b>	Not determined

**9.2 Other information**

<b>Surface tension</b>	69.6 mN/m at 20 °C, 1 g/l
<b>Dissociation constant</b>	Not determined
<b>Granulometry</b>	The mean value size of >50% of the particles is 95.91 µm.
<b>Specific gravity (20 °C)</b>	Not determined

**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

No further relevant information available

**10.2 Chemical stability**

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**

Heat, fire, moisture and incompatible substances

**10.5 Incompatible material**

No further relevant information available

**10.6 Hazardous decomposition products**

No dangerous decomposition products known

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute toxicity****LD/LC50 values relevant for classification**

	Effect dose/concentration	Value	Species
<b>Substance 86404-04-8 3-O- Ethyl Ascorbic Acid</b>			
Acute oral toxicity	LD50	5900 mg/kg bw (QSAR calculation, Consensus method)	rat

**Primary Irritant effect****Skin corrosion/irritation**In vitro skin irritation, OECD Guideline 439  
(Human patch test, dilution at 2%)

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<b>Serious eye damage/irritation</b>	Causes serious eye irritation. (in-vitro HETCAM test, dilution at 3%, moderately irritant)
<b>Respiratory tract</b>	Not determined
<b>Respiratory/skin sensitization</b>	Sensitisation determined by read-across and QSAR calculations

**Additional toxicological information**

<b>Toxicokinetics, metabolism and distribution</b>	Not determined
<b>Repeated dose toxicity</b>	Not determined
<b>CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)</b>	
<b>Germ Cell mutagenicity</b>	Not Genotoxic Negative results in test OECD 471, Bacterial Reverse Mutation Test (Ames test)
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Based on physical form, product is not expected to pose an aspiration hazard.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity****Aquatic toxicity**

	<b>Effect dose/concentration</b>	<b>Value</b>	<b>Species</b>	<b>Test</b>
<b>Substance 86404-04-8 3-O- Ethyl Ascorbic Acid</b>				
Acute toxicity	EC50 (72hr)	>100 mg/l	Algae	OECD 201, growth rate
Other	EC50 (48 hr)	>100 mg/l	Daphnia	OECD 202 Daphnia sp acute immobilisation test

**12.2 Persistence and degradability**

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.

**12.5 Results of PBT and vPvB assessment**

Not applicable

**12.6 Other adverse effects**

No further relevant information available

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Recommendation**

Smaller quantities can be disposed of with household waste.

**13.2 Uncleaning packaging****Recommendation**

Disposal must be made according to official regulations.

**SECTION 14: TRANSPORT INFORMATION****14.1 UN-Number**

ADR/RID

Not applicable

ADN

Not applicable

IMDG

Not applicable

IATA

Not applicable

**14.2 UN proper shipping name**

ADR/RID

Not applicable

ADN

Not applicable

IMDG

Not applicable

IATA

Not applicable

**14.3 Transport hazard class(es)**

ADR/RID

Not applicable

ADN

Not applicable

IMDG

Not applicable

IATA

Not applicable

**14.4 Packing group**

ADR/RID

Not applicable

ADN

Not applicable

IMDG

Not applicable

IATA

Not applicable

**14.5 Environmental hazard****Marine pollutant**

No

**14.6 Special precautions for user****Special precaution for user**

Not applicable



**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

**SECTION 15: REGULATORY INFORMATION****15.1 Safe, health and environmental regulations/legislation specific for the substance or mixture****Inventory - United States - Toxic Substances Control Act (TSCA)**

Substance is not listed.

**Canada Domestic Substances List (DSL)**

Substance is not listed.

**Canada Non-Domestic Substances List (NDSL)**

Substance is not listed.

**European Inventory of Existing Chemical Substances (EINECS)**

Substance is not listed.

**Japan Existing and New Chemical Substances (ENCS)**

Substance is not listed.

**China Inventory of Existing Chemical Substance (IECSC)**

Substance is listed.

**Korean Existing and Evaluated Chemical Substances (KECL)**

Substance is not listed.

**Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

Substance is not listed.

**Australian Inventory of Chemical Substances**

Substance is listed.

**National regulations****Other regulations, limitations and prohibitive regulations**

Not determined

**Substances of very high concern (SVHC) according to REACH, Article 59(10)**

Not determined

**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