SAFETY DATA SHEET

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

1.1. Product identifier

Product name : DELTA/S

Product code : VE5060.

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

1.3. Details of the supplier of the safety data sheet

Registered company name : CARVER S.r.l. Unipersonale.

Address : Via Papa Giovanni XXIII,36.20090.RODANO (MI).Italy.

Telephone : +39(0)2 9500171. Fax : +39(0)2 95320921.

sds@carver.it

www.carver.it

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net.

Other emergency numbers

24 HOUR EMERGENCY TELEPHONE NUMBERS :

CHEMTREC - US & CANADA toll free : + 1-800-424-9300

CHEMTREC GLOBAL - Collect calls accepted : + 1-703-527-3887

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

HCS compliant.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

HCS compliant.

Hazard statements :

Precautionary statements - General :

P102 Keep out of reach of children.

Precautionary statements - Prevention :

P271 Use only outdoors or in a well-ventilated area.

Precautionary statements - Disposal :

P501 Dispose of contents / container to an approved landfill.

2.3. Other hazards

No data available.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	HCS	Nota	%
CAS: 112-34-5 EC: 203-961-6 REACH: 01-2119475104-44 2-(2-BUTOXYETHOXY)ETHANOL	GHS07 Wng Eye Irrit. 2, H319	[1]	1 <= x % < 5*
CAS: 57-55-6 EC: 200-338-0 REACH: 01-2119456809-23 1,2-PROPYLENE GLYCOL		[1]	1 <= x % < 5*

(Full text of H-phrases: see section 16)

Information on ingredients :

*CANADA : the exact percentage (concentration) of composition has been withheld as a trade secret

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of swallowing :

Seek medical attention, showing the label.

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

No data available.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO2)

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO2)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Fire prevention :

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
112-34-5	67.5	10	101.2	15	-

- Canada / Ontario (Control of exposure to biological or chemical agents, regulation 491/2009) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
57-55-6	50 (V) ppm 155 mg/m3				

- France (INRS - ED984 :2016) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
112-34-5	10	67.5	15	101.2	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
112-34-5	10 ppm 67,5 mg/m³	15 ppm 101,2 mg/m³			
57-55-6	150 ppm 474 mg/m³	- ppm - mg/m³			

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

1,2-PROPYLENE GLYCOL (CAS: 57-55-6)

Final use:	**Workers.**
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	10 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	168 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	10 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	50 mg of substance/m3

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.

DNEL :	83 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	101.2 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	67.5 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	67.5 mg of substance/m3

Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	5 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	50 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	40.5 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	60.7 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	40.5 mg of substance/m3

Predicted no effect concentration (PNEC):

1,2-PROPYLENE GLYCOL (CAS: 57-55-6)

Environmental compartment:	Soil.
PNEC :	50 mg/kg
Environmental compartment:	Fresh water.
PNEC :	260 mg/l
Environmental compartment:	Sea water.
PNEC :	26 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	183 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	572 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	57.2 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	2000 mg/l

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Environmental compartment:	Soil.
PNEC :	0.32 mg/kg
Environmental compartment:	Fresh water.

PNEC :	1.1 mg/l
Environmental compartment:	Sea water.
PNEC :	0.11 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	3.9 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	4.4 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.44 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	200 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Natural latex
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Fluid liquid.

Important health, safety and environmental information

pH :	8.00 +/-0.5.
	Slightly basic.
Boiling point/boiling range :	Not specified.
Flash Point Interval :	FP > 100°C (212 °F)
Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
Density :	1..03 +/-0.02

Water solubility :	Dilutable.
Viscosity :	30 +/- 5 sec (F4)
Melting point/melting range :	Not specified.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid :

- frost

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No data available.

11.1.1. Substances

Acute toxicity :

1,2-PROPYLENE GLYCOL (CAS: 57-55-6)

Oral route :	LD50 = 22000 mg/kg Species : Rat
Dermal route :	LD50 > 2000 mg/kg Species : Rat

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Oral route :	LD50 = 2410 mg/kg Species : Rat
Dermal route :	LD50 = 2764 mg/kg Species : Rabbit

Skin corrosion/skin irritation :

1,2-PROPYLENE GLYCOL (CAS: 57-55-6)

Irritation :	No observed effect. Average score < 1.5

11.1.2. Mixture

No toxicological data available for the mixture.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 102-71-6 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Fish toxicity :	LC50 = 1300 mg/l Species : Lepomis macrochirus Duration of exposure : 96 h
Crustacean toxicity :	EC50 > 100 mg/l Species : Daphnia magna Duration of exposure : 48 h
Algae toxicity :	ECr50 > 100 mg/l Species : Selenastrum capricornutum Duration of exposure : 96 h

1,2-PROPYLENE GLYCOL (CAS: 57-55-6)

Fish toxicity :	LC50 = 40613 mg/l Species : Oncorhynchus mykiss Duration of exposure : 96 h NOEC > 100 mg/l
Crustacean toxicity :	EC50 = 18340 mg/l Species : Ceriodaphnia dubia Duration of exposure : 48 h
Algae toxicity :	ECr50 = 19000 mg/l Species : Skeletonema costatum Duration of exposure : 48 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

1,2-PROPYLENE GLYCOL (CAS: 57-55-6)

Biodegradability :	Rapidly degradable.

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Biodegradability :	Rapidly degradable.

12.3. Bioaccumulative potential

12.3.1. Substances

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

Bioaccumulation :	BCF < 100

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

The appropriate waste management of the mixture and/or its container must be determined in accordance with local regulations.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number

-

14.2. UN proper shipping name

-

14.3. Transport hazard class(es)

-

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

SECTION 15 : REGULATORY INFORMATION

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

The following regulations have been used:

- OSHA Hazard Communication Standard 29 CFR 1910.1200

- Container information:

No data available.

- Particular provisions :

No data available.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=1 Instability/Reactivity=1 Specific Risk=none

- Clean Water Act : Toxic Pollutants (CWA 307A)

Unlisted.

- Clean Water Act : Hazardous Substances (CWA 311)

Unlisted.

- Clean Water Act : Hazardous Substances (CWA 304b)

Unlisted.

- Clean Water Act : Priority Pollutants (CWA Priority)

Unlisted.

- Clean Air Act : Hazardous Air Pollutants (CAA 112(b) HAP (188))

Unlisted.

- Clean Air Act : Organic Hazardous Air Pollutants National Emission Standards (CAA 112(b) HON (387))

CAS	Name
112-34-5	2-(2-BUTOXYETHOXY)ETHANOL

- Clean Air Act : Protection of Stratospheric Ozone (CAA 602)

Unlisted.

- SARA 110

Unlisted.

- SARA 302/304

Unlisted.

- SARA 313

Unlisted.

- California proposition 65 : Chemicals known to the state to cause cancer or reproductive toxicity

Unlisted.

- Massachusetts : Right to Know

Unlisted.

- New Jersey : Right to Know

Unlisted.

- Pennsylvania : Hazardous Substance

Unlisted.

- Rhode Island : Hazardous substance list

Unlisted.

- TSCA (Toxic Substances Control Act) - USA

All components are listed or exempted.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

FOR INDUSTRIAL USER ONLY

Wording of the phrases mentioned in section 3 :

H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H319	Causes serious eye irritation.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

HCS : Hazard Communication standard (OSHA).