



SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

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

1.1. Product identifier

Product name : GRAVOPLY ULTRA
Product code : GRAV 029.

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

Plastic engraving materials.

1.3. Details of the supplier of the safety data sheet

Registered company name : GRAVOTECH MARKING SAS.
Address : 56, avenue Jean Jaurès.10600.La Chapelle Saint Luc.France.
Telephone : +33 (0)3 25 41 65 65. Fax : +33 (0)3 25 79 04 25.
e-mail : info@gravograph.fr
<http://www.gravograph.com>

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

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

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

May produce an allergic reaction (EUH208).

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

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

May produce an allergic reaction.

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

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Additional labeling :

EUH208 Contains METHYL METHACRYLATE. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European CHemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	67/548/EEC	Note	%
INDEX: 603-095-00-2 CAS: 2807-30-9 EC: 220-548-6	GHS07 Wng Acute Tox. 4, H312 Eye Irrit. 2, H319	Xn Xn;R21 Xi;R36	[1]	1 <= x % < 2.5
2-(PROPYLOXY)ETHANOL INDEX: 606-010-00-7	GHS02, GHS07	Xn	[1]	1 <= x % < 2.5

CAS: 108-94-1 EC: 203-631-1 REACH: 01-2119453616-35 CYCLOHEXANONE	Wng Flam. Liq. 3, H226 Acute Tox. 4, H332	Xn;R20 R10		
INDEX: 607-035-00-6 CAS: 80-62-6 EC: 201-297-1 REACH: 01-2119452498-28 METHYL METHACRYLATE	GHS02, GHS07 Dgr Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317	Xi,F Xi;R37/38-R43 F;R11	D [1]	0 <= x % < 1
CAS: 13463-67-7 EC: 236-675-5 REACH: 01-2119489379-17 TITANIUM DIOXIDE			[1]	0 <= x % < 1
INDEX: 607-032-00-X CAS: 140-88-5 EC: 205-438-8 ETHYL ACRYLATE	GHS02, GHS07 Dgr Flam. Liq. 2, H225 Acute Tox. 4, H332 Acute Tox. 4, H312 Acute Tox. 4, H302 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317	Xn,F Xn;R20/21/22 Xi;R36/37/38-R43 F;R11	[1]	0 <= x % < 1
INDEX: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 REACH: 01-2119457610-43 ETHANOL	GHS02 Dgr Flam. Liq. 2, H225	F F;R11	[1]	0 <= x % < 1

Information on ingredients :

[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 exposure by inhalation :**

In the event of an allergic reaction, seek medical attention.

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.
In the event of an allergic reaction, seek medical attention.

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.
Cool product.

5.1. Extinguishing media

Suitable methods of extinction

In the event of fire, use specifically suitable extinguishing agents.

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

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming).

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.

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.

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 (2009/161/EU, 2006/15/EC, 2000/39/EC, 98/24/EC)

CAS	VME-mg/m ³ :	VME-ppm :	VLE-mg/m ³ :	VLE-ppm :	Notes :
108-94-1	40.8	10	81.6	20	Peau
80-62-6	-	50	-	100	-
140-88-5	21	5	42	10	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
108-94-1	20 ppm	50 ppm	-	-	-
80-62-6	50 ppm	100 ppm	-	-	-

13463-67-7	10 mg/m3	-	-	-	-
140-88-5	5 ppm	15 ppm	-	-	-
64-17-5	1000 ppm	-	-	-	-

- Belgium (Order of 19/05/2009, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
108-94-1	10 ppm	20 ppm	-	-	-
80-62-6	100 ppm	-	-	-	-
13463-67-7	10 mg/m3	-	-	-	-
140-88-5	5 ppm	15 ppm	-	-	-
64-17-5	1000 ppm	-	-	-	-

- France (INRS - ED984 :2008) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
108-94-1	10	40.8	20	81.6	-	84
80-62-6	50	205	100	410	-	82
13463-67-7	-	10	-	-	-	-
140-88-5	5	21	10	42	-	65
64-17-5	1000	1900	5000	9500	-	84

- Switzerland (SUVA 2009) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Temps :	RSB :
2807-30-9	85	20	170	40	4x15	R
108-94-1	100	25	200	50	4x15	RB
80-62-6	210	50	420	100	4x15	S
13463-67-7	3a	-	-	-	-	-
140-88-5	20	5	40	10	4x15	S
64-17-5	960	500	1920	1000	4x15	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
108-94-1	10 ppm	20 ppm	-	-	-
80-62-6	50 ppm	100 ppm	-	-	-
13463-67-7	10 mg/m3	-	-	-	TI
140-88-5	5 ppm	15 ppm	-	-	-
64-17-5	1000 ppm	-	-	-	-

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

TITANIUM DIOXIDE (CAS: 13463-67-7)

Final use:

Exposure method:

Potential health effects:

DNEL :

Workers.

Inhalation.

Long term systemic effects.

4 mg of substance/m3

Exposure method:

Potential health effects:

DNEL :

Inhalation.

Long term local effects.

10 mg of substance/m3

Predicted no effect concentration (PNEC):

TITANIUM DIOXIDE (CAS: 13463-67-7)

Environmental compartment:

PNEC :

Soil.

100 mg/kg

Environmental compartment:

PNEC :

Fresh water.

0.127 mg/l

Environmental compartment:

PNEC :

Sea water.

1 mg/l

Environmental compartment:

PNEC :

Intermittent waste water.

0.61 mg/l

Environmental compartment:

PNEC :

Fresh water sediment.

1000 mg/kg

Environmental compartment:

PNEC :

Marine sediment.

100

Environmental compartment:
PNEC :

Waste water treatment plant.
100 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.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

- 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.

- Respiratory protection

Avoid breathing dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Solid.
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Important health, safety and environmental information

pH :	Not relevant.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	1.15 - 1.19
Water solubility :	Insoluble.
Self-ignition temperature :	393 °C.

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 :

- formation of dusts

Dusts can form an explosive mixture with air.

10.5. Incompatible materials

Keep away from :

- strong oxidising agents

- acids

- bases

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 :

TITANIUM DIOXIDE (CAS: 13463-67-7)

Oral route : LD50 > 5000 mg/kg
Species : Rat

Inhalation route : LC50 = 3.43 mg/l
Species : Rat

11.1.2. Mixture

Respiratory or skin sensitisation :

Contains at least one sensitising substance. May cause an allergic reaction.

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

- CAS 80-62-6 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.
- CAS 108-94-1 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

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.

German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

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.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2013 - IMDG 2012 - ICAO/IATA 2014).

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

- Container information:

No data available.

- Particular provisions :

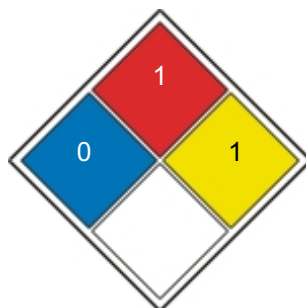
No data available.

- German regulations concerning the classification of hazards for water (WGK) :

WGK 1 (VwVwS vom 27/07/2005, KBws) : Slightly hazardous for water.

- 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



- Swiss ordinance on the incentive tax on volatile organic compounds :

- | | |
|-----------|--|
| 108-94-1 | cyclohexanone |
| 2807-30-9 | 2-propoxyéthanol |
| 64-17-5 | éthanol, seulement s'il s'agit d'alcools impropres à la consommation (art. 31 de la loi fédérale sur l'alcool) |

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.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Contains :

Contains 607-035-00-6 METHYL METHACRYLATE. May produce an allergic reaction.

Risk phrase :

Safety data sheet available for professional user on request.

Title for H, EUH and R indications mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
R 10	Flammable.
R 11	Highly flammable.
R 20	Harmful by inhalation.
R 20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R 21	Harmful in contact with skin.
R 36	Irritating to eyes.
R 36/37/38	Irritating to eyes, respiratory system and skin.
R 37/38	Irritating to respiratory system and skin.
R 43	May cause sensitisation by skin contact.

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.

WGK : Wassergefahrdungsklasse (Water Hazard Class).