



# SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

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

### 1.1. Product identifier

Product name : GRAVOLASE METALLICS

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

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### 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>.

### Other emergency numbers

National Poisons Information Service of England: <http://npis.org> - NHS 111: dial 111 - National Poisons Information Centre of Ireland: 353 (1) 809 2166 - LUXEMBOURG : (+352) 8002 5500 - European Emergency Number Association (EENA) : 112

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

The mixture does not contain substances  $\geq 0.1\%$  with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

#### Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 1333-86-4 EC: 215-609-9 REACH: 01-2119384822-32  CARBON BLACK		[1]	1 <= x % < 2.5
CAS: 7440-50-8 EC: 231-159-6		[1]	1 <= x % < 2.5

REACH: 17-2119429821-40			
COPPER			
INDEX: 013-002-00-1 CAS: 7429-90-5 EC: 231-072-3 REACH: 01-2119529243-45	GHS02 Dgr Water-react. 2, H261 Flam. Sol. 1, H228	T [1]	1 <= x % < 2.5
ALUMINIUM POWDER (STABILISED)			
INDEX: 607-035-00-6 CAS: 80-62-6 EC: 201-297-1 REACH: 01-2119452498-28	GHS02, GHS07 Dgr Flam. Liq. 2, H225 STOT SE 3, H335 Skin Irrit. 2, H315 Skin Sens. 1, H317	D [1]	0.1 <= x % < 1
METHYL METHACRYLATE			
INDEX: 607-032-00-X CAS: 140-88-5 EC: 205-438-8	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	[1]	0 <= x % < 0.1
ETHYL ACRYLATE			

**Specific concentration limits:**

Identification	Specific concentration limits	ATE
INDEX: 607-032-00-X CAS: 140-88-5 EC: 205-438-8	Skin Irrit. 2: H315 >=5% Eye Irrit. 2: H319 C>= 5% STOT SE 3: H335 C>= 5%	
ETHYL ACRYLATE		

**Information on ingredients :**

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

[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.

If inhaled, move the patient into the fresh air and keep warm and at rest.

If breathing is irregular or has stopped, proceed with artificial respiration and seek medical attention.

**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, 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.

Wash the skin thoroughly with soap and water or a recognised cleaner.

**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**

No data available.

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

**5.3. Advice for firefighters**

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

**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.

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.

**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 (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m <sup>3</sup> :	VME-ppm :	VLE-mg/m <sup>3</sup> :	VLE-ppm :	Notes :
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 :
1333-86-4	3 (l) mg/m <sup>3</sup>			A3	
7440-50-8	0.2 mg/m <sup>3</sup>	-	-	-	-

7429-90-5	2 mg/m3	-	-	-	-
80-62-6	50 ppm	100 ppm		SEN; A4	
140-88-5	5 ppm	15 ppm		A4	

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
80-62-6		50 ppm 210 mg/m <sup>3</sup>		2(l)
140-88-5		2 ppm 8.3 mg/m <sup>3</sup>		2(l)

- Australia (NOHSC: 3008, 1995) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1333-86-4	3 mg/m3			A	
7440-50-8	1 mg/m3	-	-	-	-
7429-90-5	2 mg/m3	-	-	-	-
80-62-6	50 ppm 208 mg/m3	100 ppm 416 mg/m3			
140-88-5	5 ppm 20 Peak limitation mg/m3			A	

- Austria (BGBl. II Nr. 156/2021) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7440-50-8	0.1 A mg/m <sup>3</sup>	0.4 A mg/m <sup>3</sup>			
7429-90-5	10 E mg/m <sup>3</sup>	20 E mg/m <sup>3</sup>			
80-62-6	50 ppm 210 mg/m <sup>3</sup>	100 ppm 420 mg/m <sup>3</sup>			
140-88-5	5 ppm 20 mg/m <sup>3</sup>	10 ppm 40 mg/m <sup>3</sup>			

- Belgium (Royal decree of 11/05/2021) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1333-86-4	3 mg/m <sup>3</sup>				
7440-50-8	1 mg/m3	-	-	-	-
7429-90-5	10 mg/m3	-	-	-	-
80-62-6	50 ppm 208 mg/m <sup>3</sup>	100 ppm 416 mg/m <sup>3</sup>			
140-88-5	5 ppm 21 mg/m <sup>3</sup>	10 ppm 42 mg/m <sup>3</sup>			

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
1333-86-4	-	3.5	-	-	-	-
7429-90-5	-	10	-	-	-	-
80-62-6	50	205	100	410	-	82
140-88-5	5	21	10	42	-	65

- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
7440-50-8	0.1 ppm	0.2 ppm		
7429-90-5	3 ppm			
80-62-6	50 ppm 210 mg/m <sup>3</sup>	100 ppm 420 mg/m <sup>3</sup>		
140-88-5	2.5 ppm 10 mg/m <sup>3</sup>	10 ppm 42 mg/m <sup>3</sup>		

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1333-86-4	3.5 mg/m <sup>3</sup>	7 mg/m <sup>3</sup>			
7440-50-8	0.2 mg/m3	-	-	-	-
7429-90-5	2 mg/m3	-	-	-	-
80-62-6	50 ppm 208 mg/m <sup>3</sup>	100 ppm 416 mg/m <sup>3</sup>			
140-88-5	5 ppm 21 mg/m <sup>3</sup>	10 ppm 42 mg/m <sup>3</sup>			

- USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1333-86-4	3.5 mg/m3				
7440-50-8	1 mg/m3	-	-	-	-

7429-90-5	15 mg/m3	-	-	-	T
80-62-6	100 ppm 410 mg/m3				
140-88-5	25 ppm 100 mg/m3			skin	

**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.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

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.

**- 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 inhaling dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149/A1.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties****Physical state**

Physical state :	Solid.
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**Colour**

Colour:	Not stated.
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**Odour**

Odour threshold :	Not stated.
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**Freezing point**

Freezing point / Freezing range :	Not stated.
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**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range :	Not relevant.
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**Flammability**

Flammability (solid, gas) :	Not stated.
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**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) :	Not stated.
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Explosive properties, upper explosivity limit (%) :	Not stated.
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**Flash point**

Flash point interval :	Not relevant.
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**Auto-ignition temperature**

Self-ignition temperature :	393 °C.
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**Decomposition temperature**

Decomposition point/decomposition range :	Not relevant.
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**pH**

pH (aqueous solution) :	Not stated.
pH :	Not relevant.
<b>Kinematic viscosity</b>	
Viscosity :	Not stated.
<b>Solubility</b>	
Water solubility :	Insoluble.
Fat solubility :	Not stated.
<b>Partition coefficient n-octanol/water (log value)</b>	
Partition coefficient: n-octanol/water :	Not stated.
<b>Vapour pressure</b>	
Vapour pressure (50°C) :	Not relevant.
<b>Density and/or relative density</b>	
Density :	1.15 - 1.19
<b>Relative vapour density</b>	
Vapour density :	Not stated.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

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

**10.5. Incompatible materials**

Keep away from :

- acids
- alkalis
- strong oxidising agents

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**SECTION 11 : TOXICOLOGICAL INFORMATION****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

No data available.

**11.1.1. Substances**

No toxicological data available for the substances.

**11.1.2. Mixture****Respiratory or skin sensitisation :**

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

**11.2. Information on other hazards****Monograph(s) from the IARC (International Agency for Research on Cancer) :**

- CAS 140-88-5 : IARC Group 2B : The agent is possibly carcinogenic to humans.
- CAS 80-62-6 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.
- CAS 1333-86-4 : IARC Group 2B : The agent is possibly carcinogenic 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

#### 12.2.1. Substances

CARBON BLACK (CAS: 1333-86-4)

Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

### 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. Endocrine disrupting properties

No data available.

### 12.7. Other adverse effects

No data available.

### German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :

Nicht wassergefährdend : Not 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, 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 or ID 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

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### 14.7. Maritime transport in bulk according to IMO instruments

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## 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:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

**Container information:**

No data available.

**Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):**

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

**Explosives precursors :**

The mixture contains at least one substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors:  
- Aluminium, powders (CAS 7429-90-5)

**Particular provisions :**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

Nicht wassergefährdend : Not hazardous for water.

**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.

**Wording of the phrases mentioned in section 3 :**

H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H261	In contact with water releases flammable gases.
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.

**Abbreviations and acronyms :**

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

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 : Wassergefährdungsklasse (Water Hazard Class).

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.