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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: BRASURE_TOUS_METAUX

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

Hard solder

1.3. Details of the supplier of the safety data sheet

Registered company name: GEB.

Address: CS 62062.95972.ROISSY CDG CEDEX . France. Telephone: +33 1 48 17 99 99. Fax: +33 1 48 17 98 00.

geb@geb.fr www.geb.fr

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

Association/Organisation: INRS.

Other emergency numbers

N/A

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

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

Precautionary statements - Prevention:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection/face protection.
P285 In case of inadequate ventilation wear respiratory protection.

2.3. Other hazards

In the event of dust formed by mechanical action (sanding, sawing, etc..), this dust may cause irritation by inhalation and contact with eyes.

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 59 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> = 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.

Brazing, heating, grinding and machining operations, which cause the temperature of the product to rise around the melting point or by generating volatile particles, can be detrimental to health. Dust and fumes can emerging during the implementation, specifically at the time of brazing, thermal cutting and grinding.Long-term inhalation of ambient air heavily loaded with dust and fumes can affect the health of workers.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition:

Identification	Classification (EC) 1272/2008	Note	%
CAS: 557-05-1		[i]	25 <= x % < 50
EC: 209-151-9			
ZINC (STEARATE)			
CAS: 7440-50-8		[i]	25 <= x % < 50
EC: 231-159-6			
REACH: 01-2119480154-42			
CUIVRE			
INDEX: 009-002-00-6	GHS06, GHS05	[i]	$0 \le x \% < 0.1$
CAS: 7664-39-3	Dgr		
EC: 231-634-8	Acute Tox. 2, H300		
	Acute Tox. 1, H310		
HYDROGEN FLUORIDE	Skin Corr. 1A, H314		
	Acute Tox. 2, H330		

Information on ingredients:

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

[i] 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 :

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

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 swallowing:

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, 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

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- 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

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.

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.

Do not breathe in dust.

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)

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

- European Union :

CAS	VME-mg/m3:	VME-ppm:	VLE-mg/m3:	VLE-ppm:	Notes :
7664-39-3	1.5	1.8	2.5	3	-
- UK :					

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
557-05-1	4 mg/m3				
7440-50-8	0.2 mg/m3	-	-	-	-
7664-39-3	1.8 ppm	3 ppm			
	1.5 mg/m3	2.5 mg/m3			

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

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 ISO 16321.

- Hand protection

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

Type of gloves recommended:

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- Butyl Rubber (Isobutylene-isoprene copolymer)
- $Viton \otimes (Hexafluoropropylene\ copolymer\ and\ vinylidene\ fluoride)$

Recommended properties:

Thk: 0.075 mm

- 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.

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

It is recommended to install a fume extraction system as close as possible to the emission source. In case of insufficient ventilation, wear an appropriate respiratory device. If vapors and aerosols are formed, wear a respirator with a suitable filter.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state: Solid.

Colour

Unspecified

Odour

Odour threshold: Not stated.

Melting point

Melting point/melting range: 600/800 °C

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Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range: Not relevant.

Flammability

Flammability (solid, gas): Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) Not stated.

Explosive properties, upper explosivity limit (%) Not stated.

Flash point

Flash point interval: Not relevant.

Auto-ignition temperature

Self-ignition temperature: Not relevant.

Decomposition temperature

Decomposition point/decomposition range: Not relevant.

pН

pH (aqueous solution): Not stated. pH: Not relevant.

Kinematic viscosity

Viscosity: Not stated.

Solubility

Water solubility: Insoluble. Fat solubility: Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water: Not stated.

Vapour pressure

Vapour pressure (50°C): Not relevant.

Density and/or relative density

Density: 8.6/9.5

Relative vapour density

Vapour density: Not stated.

Particle characteristics

The mixture does not contain nanoforms.

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

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10.4. Conditions to avoid

Avoid:

- formation of dusts

Dusts can form an explosive mixture with air.

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 hazard classes as defined in Regulation (EC) No 1272/2008

11.1.1. Substances

a) Acute toxicity:

No data available.

b) Skin corrosion/skin irritation:

No data available.

c) Serious damage to eyes/eye irritation:

No data available.

d) Respiratory or skin sensitisation:

No data available.

e) Germ cell mutagenicity:

No data available.

f) Carcinogenicity:

No data available.

g) Reproductive toxicant:

No data available.

$\label{eq:hamiltonian} \textbf{h) Specific target organ systemic toxicity - single exposure:}$

No data available.

i) Specific target organ systemic toxicity - repeated exposure :

No data available.

j) Aspiration hazard:

No data available.

11.1.2. Mixture

11.1.2.1 Information on hazard classes

a) Acute toxicity:

Oral route: No data available.

No data available.

Dermal route:

No data available.

Inhalation route (Dusts/mist):

b) Skin corrosion/skin irritation:

No data available.

c) Serious damage to eyes/eye irritation:

No data available.

d) Respiratory or skin sensitisation:

No data available.

e) Germ cell mutagenicity:

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f) Carcinogenicity:

No data available.

g) Reproductive toxicant:

No data available.

h) Specific target organ systemic toxicity - single exposure :

No data available.

i) Specific target organ systemic toxicity - repeated exposure :

No data available.

j) Aspiration hazard:

No data available.

11.1.2.2 Other information

Interactive effects

In the event of dust formed by mechanical action (sanding, sawing, etc..), this dust may cause irritation by inhalation and contact with eyes.

11.2. Information on other hazards

Endocrine disrupting properties

The mixture does not contain any substance evaluated as an endocrine disruptor with effects on human health.

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

ZINC (STEARATE) (CAS: 557-05-1)

Biodegradability:

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

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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

The mixture does not contain any substance evaluated as an endocrine disruptor with environmental effects.

12.7. Other adverse effects

No data available.

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.

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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

-

14.7. Maritime transport in bulk according to IMO instruments

-

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. 2023/707.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2024/2564. (ATP 22)

Container information:

No data available.

Particular provisions:

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.

Authorisations agreed under Title VII of Regulation (EC) No.1907/2006 (REACH):

The mixture does not contain any substance subject to authorisation according to Annex XIV of REACH Regulation (EC) No 1907/2006: https://echa.europa.eu/fr/authorisation-list.

Substances that deplete the ozone layer (EC Regulation No. 1005/2009, Montreal Protocol):

The mixture does not contain any substance posing a risk to the ozone layer.

Persistent organic pollutants (POP) (Regulation (EU) 2019/1021):

The mixture does not contain a persistent organic pollutant.

PIC Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (Rotterdam Convention):

The mixture is not subject to the Prior Informed Consent (PIC) procedure.

Explosives precursors:

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

15.2. Chemical safety assessment

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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.

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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:

H300 Fatal if swallowed.
H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

Abbreviations and acronyms:

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

STEL : Short-term exposure limit TWA : Time Weighted Averages

TLV: Threshold Limit Value (exposure)

AEV: Average Exposure Value.

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

IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
ICAO: International Civil Aviation Organisation
PBT: Persistent, bioaccumulable and toxic.

PIC: Prior Informed Consent.
POP: Persistent Organic Pollutant.

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

SVHC : Substances of very high concern. vPvB : Very persistent, very bioaccumulable.

WGK: Wassergefahrdungsklasse (Water Hazard Class).