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FIRE ASSAY

Safety Data Sheet - Premixed flux

Safety Data Sheet dated 20/2/2025, version 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture identification:

Trade name:	Fundente para ensayo al fuego
Trade code:	GCM01
UFI:	Y300-E008-400M-GVKX

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

Recommended use:

mixture of fluxes for precious metals

1.3. Details of the supplier of the safety data sheet

Company:

FIRE ASSAY SL- Passeig de Marià Estrada 12, L- Alella - España

Teléfono: +34 93 418 13 10

Competent person responsible for the safety data sheet:

Gabriel Coral gabriel.coral@fireassay.eu

1.4. Emergency telephone number

Telephone: +34 93 418 13 10

Opening hours: Monday to Friday from 9am to 5pm

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Warning, Acute Tox. 4, Harmful if swallowed.

Warning, Acute Tox. 4, Harmful if inhaled.

Warning, Eye Irrit. 2, Causes serious eye irritation.

Warning, Carc. 2, Suspected of causing cancer.

Danger, Repr. 1A, May damage the unborn child. Suspected of damaging fertility. Lact., May cause harm to breast-fed children.

Danger, STOT RE 1, Causes damage to organs (nervous system, blood, kidneys) through prolonged or repeated exposure if inhaled and in contact with skin.

Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H302+H332 Harmful if swallowed or if inhaled.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H360Df May damage the unborn child. Suspected of damaging fertility.
H362 May cause harm to breast-fed children.
H372 Causes damage to organs (nervous system, blood, kidneys) through prolonged or repeated exposure if inhaled and in contact with skin.
H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P263 Avoid contact during pregnancy and while nursing.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P391 Collect spillage.
Special Provisions:
None
Contains
Lead monoxide
Special provisions according to Annex XVII of REACH and subsequent amendments:
Restricted to professional users.

2.3. Other hazards
PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%:
>= 40% - < 50% Lead monoxide - REACH No.: 01-2119531110-62, Index number: 082-001-00-6, CAS: 1317-36-8, EC: 215-267-0:
PBT
Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
N.A.
3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 40% - < 50%	Lead monoxide	Index number: 082-001-00-6 CAS: 1317-36-8 EC: 215-267-0 REACH No.: 01-2119531110-62	3.1/4/Oral Acute Tox. 4 H302 3.1/4/Inhal Acute Tox. 4 H332 3.6/2 Carc. 2 H351 3.7/1A Repr. 1A H360Df 3.7/Lact. Lact. H362 3.9/1 STOT RE 1 H372 4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 30% - < 40%	Sodium carbonate	CAS: 497-19-8 EC: 207-838-8 REACH No.: 01-2119485498-19	3.3/2 Eye Irrit. 2 H319
>= 15% - < 20%	disodium tetraborate, anhydrous	Index number: 005-011-00-4 CAS: 1330-43-4 EC: 215-540-4	3.7/1B Repr. 1B H360FD

SVHC, PBT, vPvB, endocrine disruptor substances:
>= 40% - < 50% Lead monoxide
REACH No.: 01-2119531110-62, Index number: 082-001-00-6, CAS: 1317-36-8, EC: 215-267-0
PBT, SVHC
>= 15% - < 20% disodium tetraborate, anhydrous
Index number: 005-011-00-4, CAS: 1330-43-4, EC: 215-540-4
SVHC

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SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Give nothing to eat or drink.
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.
In case of inhalation, consult a doctor immediately and show the packing or label.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Spray water.
Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Provide adequate ventilation.
Use appropriate respiratory protection.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.

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In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Exercise the greatest care when handling or opening the container.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Lead monoxide - CAS: 1317-36-8

TWA - TWA: 0.15 mg/m3

ACGIH - TWA(8h): 0.05 mg/m3 - Notes: A3, BEI - CNS and PNS impair, hematologic eff

disodium tetraborate, anhydrous - CAS: 1330-43-4

ACGIH - TWA(8h): 2 mg/m3 - STEL: 6 mg/m3 - Notes: (I), A4 - URT irr

DNEL Exposure Limit Values

Lead monoxide - CAS: 1317-36-8

Worker Professional: 10 µg/dL - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Sodium carbonate - CAS: 497-19-8

Worker Professional: 10 mg/m3 - Consumer: 10 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

PNEC Exposure Limit Values

Lead monoxide - CAS: 1317-36-8

Target: Fresh Water - Value: 3.1 µg/l
Target: Marine water - Value: 3.5 µg/l
Target: Plant wastewater treatment - Value: 100 µg/l
Target: Freshwater sediments - Value: 174 mg/kg
Target: Marine water sediments - Value: 164 mg/kg
Target: Soil (agricultural) - Value: 212 mg/kg

8.2. Exposure controls

Eye protection:

Dust protection eye glasses.

Protection for skin:

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Chemical protection clothing.

Protection for hands:

Rubber nitrilo: thickness> 0.45 mm Time of perforation> 480 min (EN 374)

Respiratory protection:

If there is dust formation. Particle filter (EN 143). P2 (filters at least 94% of atmospheric particles, color code: white).

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Physical state:	Solid	--	--
Colour:	Dark	--	--
Odour:	Characteristic	--	--
Melting point/freezing point:	> 800 ºC	--	--
Boiling point or initial boiling point and boiling range:	Not Relevant	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	Not Relevant	--	--
Flash point:	Not Relevant	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:		--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	Soluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	Not Relevant	--	--
Density and/or relative density:	N.A.	--	--
Relative vapour density:	Not Relevant	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

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Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

Fundente para ensayo al fuego

a) acute toxicity

The product is classified: Acute Tox. 4 H302;Acute Tox. 4 H332

ATEmix - Oral 1063,83 mg/kg bw

ATEmix - Inhalation (Dust) 3,19149 mg/l

b) skin corrosion/irritation

Not classified

Based on available data, the classification criteria are not met

c) serious eye damage/irritation

The product is classified: Eye Irrit. 2 H319

d) respiratory or skin sensitisation

Not classified

Based on available data, the classification criteria are not met

e) germ cell mutagenicity

Not classified

Based on available data, the classification criteria are not met

f) carcinogenicity

The product is classified: Carc. 2 H351

g) reproductive toxicity

The product is classified: Repr. 1A H360Df;Lact. H362

h) STOT-single exposure

Not classified

Based on available data, the classification criteria are not met

i) STOT-repeated exposure

The product is classified: STOT RE 1 H372

j) aspiration hazard

Not classified

Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

Lead monoxide - CAS: 1317-36-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg - Based on available data, the classification criteria are not met

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Based on available data, the classification criteria are not met

Test: ATE - Route: Inhalation - Species: Rat 1.5

b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Negative - Based on available data, the classification criteria are not met

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Negative - Based on available data, the classification criteria are not met

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: Guinea pig Negative - Based on available data, the classification criteria are not met

Sodium carbonate - CAS: 497-19-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 4090 mg/kg

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11.2. Information on other hazards
Endocrine disrupting properties:
No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
Fundente para ensayo al fuego
The product is classified: Aquatic Chronic 1 - H410
Lead monoxide - CAS: 1317-36-8
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 0.04-0.81 mg/l - Duration h: 96 - Notes: pH> 6.5 - 7.5
Endpoint: EC50 - Species: Daphnia 0.073-0.655 mg/l - Duration h: 48 - Notes: pH> 6.5 - 7.5
Endpoint: EC50 - Species: Algae 0.072-0.388 mg/l - Duration h: 72 - Notes: pH> 6.5 - 7.5
b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish 0.0178-1.558 mg/l
Sodium carbonate - CAS: 497-19-8
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish 740 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia 265 mg/l - Duration h: 48
12.2. Persistence and degradability
None
N.A.
12.3. Bioaccumulative potential
Lead monoxide - CAS: 1317-36-8
Bioaccumulation: Low Bioaccumulative potential 1.552
12.4. Mobility in soil
Lead monoxide - CAS: 1317-36-8
Mobility in soil: Not mobile - Test: log/Koc 5.2 - Notes: Sedimento agua dulce
12.5. Results of PBT and vPvB assessment
PBT Substances:
>= 40% - < 50% Lead monoxide - CAS: 1317-36-8
vPvB Substances: None
12.6. Endocrine disrupting properties
No endocrine disruptor substances present in concentration >= 0.1%
12.7. Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

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14.1. UN number or ID number

ADR-UN Number:	2291
IATA-UN Number:	2291
IMDG-UN Number:	2291

14.2. UN proper shipping name

ADR-Shipping Name:	LEAD COMPOUND, SOLUBLE, N.O.S.(Lead monoxide)
IATA-Shipping Name:	LEAD COMPOUND, SOLUBLE, N.O.S.(Lead monoxide)
IMDG-Shipping Name:	LEAD COMPOUND, SOLUBLE, N.O.S.(Lead monoxide)

14.3. Transport hazard class(es)

ADR-Class:	6.1
ADR - Hazard identification number:	60
IATA-Class:	6.1
IATA-Label:	6.1
IMDG-Class:	6.1

14.4. Packing group

ADR-Packing Group:	III
IATA-Packing group:	III
IMDG-Packing group:	III

14.5. Environmental hazards

ADR-Enviromental Pollutant:	Yes
IMDG-Marine pollutant:	Marine Pollutant
Most important toxic component:	Lead monoxide
IMDG-EmS:	F-A , S-A

14.6. Special precautions for user

ADR-Subsidiary hazards:	-
ADR-S.P.:	199 274 535
ADR-Transport category (Tunnel restriction code):	2 (E)
IATA-Passenger Aircraft:	670
IATA-Subsidiary hazards:	-
IATA-Cargo Aircraft:	677
IATA-S.P.:	A92
IATA-ERG:	6L
IMDG-Subsidiary hazards:	-
IMDG-Stowage and handling:	Category A
IMDG-Segregation:	SGG7 SGG9

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)

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Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

Restriction 30
Restriction 63
Restriction 72
Restriction 75

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

SVHC Substances:

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):

Lead monoxide

Toxic to reproduction, PBT

disodium tetraborate, anhydrous

Toxic to reproduction

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

Product belongs to category: E1

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H302 Harmful if swallowed.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
H360Df May damage the unborn child. Suspected of damaging fertility.
H362 May cause harm to breast-fed children.
H372 Causes damage to organs (nervous system, kidneys, blood) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
H360FD May damage fertility. May damage the unborn child.
H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Carc. 2	3.6/2	Carcinogenicity, Category 2
Repr. 1A	3.7/1A	Reproductive toxicity, Category 1A
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
Lact.	3.7/Lact.	Reproductive toxicity, Hazard category for lactation effects
STOT RE 1	3.9/1	Specific target organ toxicity - repeated exposure,

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		Category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Acute Tox. 4, H302	Calculation method
Acute Tox. 4, H332	Calculation method
Eye Irrit. 2, H319	Calculation method
Carc. 2, H351	Calculation method
Repr. 1A, H360Df	Calculation method
Lact., H362	Calculation method
STOT RE 1, H372	Calculation method
Aquatic Chronic 1, H410	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.