

MATERIAL SAFETY DATA SHEET
Material Safety Data Sheet compliant with the Commission Regulation (EU) No.
830/2015 of 28 May 2015




Creation date: 9 January 2015
Updated: 16 March 2018

FIREPLACE SEALANT

SECTION 1. Identification of the substance/preparation and of the company/undertaking

- 1.1. Product identifier
name: FIREPLACE SEALANT
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
identified uses: Silicate glue for installing, joining and sealing car exhaust systems and damaged ceramic, chamotte, metal concrete intake and exhaust lines for both flue gas and fluids.
unadvised use: -
- 1.3. Details of the supplier of the safety data sheet: _____
LAKMA SAT
43-400 Cieszyn
ul. Frysztacka 173
tel.:033-852-66-01
fax:033-852-66-03
lakma@lakma.com
lakma.sat@lakma.com
- 1.4. Emergency telephone number:
in case of failures: + 48 (033) 852 66 01 8:00 to 16:00
112 (emergency telephone number), 998 (Fire Service), 999 (Ambulance Service)

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
human health hazards: Causes severe skin burns and eye damage.
environmental hazards: -
physicochemical hazards: -
- 2.2. Label elements
Contains: sodium metasilicate (EC number: 229-912-9)
- 
DANGER
- H-statements: H314 – Causes severe skin burns and eye damage
- P-statements: P102 - Keep out of children.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.

Creation date: 9 January 2015
 Updated: 16 March 2018

FIREPLACE SEALANT

P303+P361+P353 – If on skin (or hair): immediately remove/take off all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P405 – Store locked up.
 P501 - Dispose of contents/container to a hazardous waste collection site

2.3. Other Hazards

PBT – No information available on fulfilling the criteria acc. to Annex XIII to REACH.
 vPvB – No information available on fulfilling the criteria acc. to Annex XIII to REACH.

SECTION 3: Composition/Information on ingredients

3.1. Substance: not applicable

3.2. Mixtures

| ingredients | CAS no. | EINECS no. | Registration no. | contents % | classification |
|---------------------|-----------|------------|-----------------------|------------|---------------------------------------|
| sodium metasilicate | 6834-92-0 | 229-912-9 | 01-2119449811-37-0005 | 5 -10 | Skin Corr.1B, H314 STOT SE.3, H335 |
| Graphite | 7782-42-5 | 231-955-3 | 01-2119486977-12-0000 | 0.5-10 | - |
| Carbon black | 1333-86-4 | 215-609-9 | 01-2119384822-32-0000 | 0.5-10 | - |
| Aluminum oxide | 1344-28-1 | 215-691-6 | 01-2119529248-35-0000 | 40-70 | - |

SECTION 4. First-aid measures

4.1 Description of first aid measures

eye contact: Flush eyes with large amount of water for at least 15 minutes. If the irritation persists – ensure medical attention.
 skin contact: Carefully wash the irritated places with water. If the irritation persists, contact a dermatologist.
 contact with the respiratory tract: Remove the victim from the place of exposure. Provide fresh air and rest. If the irritation persists, consult a doctor.
 if consumed: Carefully rinse mouth with water. Ensure medical attention and provide product information.

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

No data.

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

Emergency treatment is to be decided by a physician, upon careful examination of the victim.

FIREPLACE SEALANT

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: CO₂, extinguishing powder, water spray, alcohol-resistant foam.

Unsuitable extinguishing media: direct water stream.

5.2. Special hazards arising from the substance or mixture

Non-flammable product.

5.3. Advice for firefighters

Basic procedures in case of adjacent fire
call the Fire Service immediately,
draw attention of nearby people to the fire,
make sure the evacuation route is unobstructed,
make sure all the people who are not fighting the fire leave the hazardous area,
cool the containers exposed to the fire or heat with water, maintaining a safe distance.

Dedicated protective equipment:

Protective clothing and supplied-air respirators.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures for people not remedying the emergency:

For people not remedying the emergency: Restrict third party access to the emergency area until the required cleaning operations are finished. Avoid contact with the eyes and skin. Ensure adequate ventilation.

For people remedying the emergency: Make sure the emergency and its consequences are removed only by trained staff.

Personal protection:

Avoid direct contact with the mixture. Use protective clothing, gloves and boots.

General information:

Secure the source of the leak immediately, close the lubricant leakage, seal the leak.

Make sure the evacuation route is unobstructed.

For larger leakages, call the chemical emergency services.

Evacuate all the persons not participating in the rescue operation from the affected area.

Remove ignition sources.

Do not use sparking tools.

6.2. Environmental precautions

Place the damaged container in an emergency packaging, restrict the spread of the leakage, do not allow the product to reach storm drains and water reservoirs. Notify competent authorities if groundwater pollution occurs. Remove the leakage, if possible.

6.3. Methods and material for containment and cleaning up:

Small amounts of spilled product – remove any sealant leakage with a cloth, scrub. Dispose according to local and national regulations.

Larger product amounts – cover with a noncombustible absorbent, e.g. sand and then collect into dedicated containers.

Dispose according to local and national regulations.

Product vapor or mist may pose a threat of ignition or explosion.

Note: Materials like cloths, paper etc. soaked with the product pose a fire hazard. As such, these materials should not be stored but disposed of safely.

FIREPLACE SEALANT

6.4. Reference to other sections

- Safe handling information – section/chapter 7.
- Personal protective equipment information – section/chapter 8.
- Disposal information – section/chapter 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling:

Preparation handling

Respect the key occupational health and safety principles and workstation instructions at the workplace. Corrosive product. Store large amounts locked up. Keep out of reach of children. Keep away from food, drink and animal feedingstuffs. Avoid contact with skin, eyes and accidental ingestion. Do not spill. Wash hands thoroughly after handling. Wear suitable protective clothing, gloves and glasses and/or face protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in dry and ventilated rooms, in tight containers at temperatures from +5°C to +25°C.

Store the product away from oxidizing materials, acids and bases that may corrode the containers. Do not store the product near foodstuffs. Product packaging and containers – keep away from heat sources, avoid exposure to direct sunlight, keep away from ignition sources.

7.3. Specific end use(s)

No data.

SECTION 8. Exposure controls/personal protection

The personal protective equipment applied must fulfil the requirements of the Regulation of the Minister of the Economy of 21 December 2005 (Polish Journal of Laws No. 259, item 2173) and the Directive 89/686/EC (as amended). The employer should provide personal protective equipment adequate to the activities performed and fulfilling all quality requirements, as well as ensure their maintenance and cleaning.

8.1. Control parameters

Ingredients and controlled limit values depending on the workstation:

| Exposure controls | MAC [mg/m ³] | MAC(STEL) [mg/m ³] |
|-------------------|--------------------------|--------------------------------|
| - | - | - |

For sodium metasilicate:

- DNEL for long-term employee exposure via the skin: 1.49 mg/kg bw/day – general impact
- DNEL for long-term employee exposure via the inhalation route: 6.22 mg/m³ – general impact
- DNEL for long-term general population exposure via the skin: 0.74 mg/kg bw/day.
- DNEL for long-term general population exposure via the inhalation route: 1.55 mg/m³.
- DNEL for long-term general population exposure via ingestion: 0.74 mg/kg bw/day

- PNEC fresh water: 7.5 mg/L
- PNEC marine water: 1.0 mg/L
- PNEC – periodic release (unintended): 7.5 mg/L
- PNEC sediment: 1000 mg/L

For graphite:

DNEL: 1.2 mg/m³ – long-term employee exposure via the inhalation route

8.2. Exposure controls

Follow the general health and safety guidelines. Ensure sufficient ventilation for the room. Do not eat, drink or smoke tobacco during work. Wash hands thoroughly before taking a break and after finishing work. Avoid contact with the eyes.

FIREPLACE SEALANT

Respiratory protection

Dust mask with P1 filter.

Hands and body protection

Chemical resistant protective gloves, work clothing.

Eye protection

Protective glasses.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|----------------------------|-----------------------------|
| Physical state | paste |
| pH | 12.79 |
| Solidification temperature | ca. -2°C |
| Boiling point | 110°C - 120°C |
| Density | 1.9 – 2.3 g/cm ³ |
| Water solubility | soluble |

9.2. Other information

No additional tests.

SECTION 10. Stability and reactivity

10.1. Reactivity

No data.

10.2. Chemical stability

The product is stable if used and stored appropriately.

10.3. Possibility of hazardous reactions

Reacts with strong oxidizing agents.

10.4. Conditions to avoid

Keep away from sources of ignition, heat and direct sunlight.

10.5. Incompatible materials

No data.

10.6. Hazardous decomposition products

None, with appropriate storage of the material.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

In contact with the respiratory tract:

The mixture vapors may cause tears and eye pain, conjunctival redness, cough, a burning sensation in the throat and nose.

Larger concentrations cause pain and dizziness, weakness, nausea and vomiting. High-concentration product vapors may cause trouble breathing, loss of consciousness and even death. Local and general ventilation is required.

Creation date: 9 January 2015
Updated: 16 March 2018

FIREPLACE SEALANT

| | |
|---|---|
| Skin contact | Contamination of skin with the preparation may cause localized redness, pain, skin itching, defatting of the skin that may lead to skin inflammation. |
| Eye contact | Eye contamination causes pain, redness of the conjunctiva and lacrimation. |
| Ingestion | Ingestion may cause throat pain, pain in the esophagus, stomach pain and may cause symptoms similar to those in inhalation poisoning. |
| Acute toxicity upon ingestion: Hectorite Compounds LD50 >20,000 mg/kg (rat) LD50 (ingestion) – 1153 mg/kg (rat) – for sodium silicate alone. | |
| For carbon black: LD50 ingestion: LD50 (rat) > 8000 mg/kg. (OECD TG 401 equivalent) | |

SECTION 12. Ecological information

12.1. Toxicity

The mixture has not been classified as hazardous for the environment but may impact the ecosystem by increasing the water and soil pH. Consequently, make sure the product does not penetrate into ground water and soil.

12.2. Persistence and degradability

No data.

12.3. Bioaccumulative potential

Does not have a bioaccumulative potential.

12.4. Mobility in soil

Easily absorbed in soil.

12.5. Results of PBT and vPvB assessment

PBT No information available on fulfilling the criteria acc. to Annex XIII to REACH.

vPvB No information available on fulfilling the criteria acc. to Annex XIII to REACH.

12.6. Other adverse effects

No data.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

Cover the resulting waste with absorbent, e.g. sand, diatomaceous earth, sawdust – collect into closed containers and destroy according to the local and national regulations.

Dispose of the contaminated packaging according to the applicable regulations.

Waste product handling:

Do not allow the product to reach storm drains, water bodies and the sewage system.

Small quantities held by consumers – treat as municipal household waste. Large quantities of the waste product are not to be disposed of together with municipal waste. Eliminate at authorized incineration plants or waste treatment / neutralization plants, according to the applicable regulations.

Treatment of waste packaging held by consumers:

Treat the product packaging as municipal waste

Treatment of waste packaging containing product residues (larger quantities)

Dispose of according to the applicable regulations,

SAFETY DATA SHEET
Material Safety Data Sheet compliant with the Commission Regulation (EU) No.
830/2015 of 28 May 2015



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FIREPLACE SEALANT

Waste code

08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances
15 01 10 Packaging containing deposits of hazardous substances or polluted with such substances.

Community legislation

Directives of the European Parliament and of the Council 2006/12/EC and 94/62/EC, Council Directive: 91/689/EEC

National legislation

Notice of the Speaker of the Sejm of the Republic of Poland dated 8 December 2017 on the publication of a consolidated text of the Waste Act – Polish Journal of Laws 2018 item 21.
Regulation of the Minister of the Environment of 9 December 2014 on waste catalog – Polish Journal of Laws 2014, item 1923.

SECTION 14. Transport information

14.1. UN-Number: 1719

ADR/RID and GGVSEB land transportation (international / national): ADR/RID class – GGVSEB: 8

Sea transportation IMDG/VSee: IMDG/VSee class: 8

Air transportation ICAO – TI and IATA – DGR: ICAO/IATA class: 8

14.2. Proper shipping name

CAUSTIC ALKALI LIQUID, N.O.S.

14.3. Transport hazard class

8

14.4. Packing group

III

14.5. Environmental hazards

Does not apply

14.6. Special precautions for the user

Use personal protective equipment while handling the load, acc. to item 8.

14.7. Transport in bulk according to MARPOL 73/78 Annex II and the IBC Code.

SECTION 15. Regulatory information

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

Notice of the Speaker of the Sejm of the Republic of Poland dated 24 November 2017 on the publication of a consolidated text of the Act on chemicals and their mixtures (Polish Journal of Laws 2018, item 143)

Classification

Notice of the Minister of Health of 12 January 2015 on the publication of the uniform text of the Regulation of the Minister of Health on criteria and methods of classification of chemical substances and their mixtures.
Regulation of the Minister of Health of 23 December 2013 amending the Regulation on criteria and methods of classification of chemical substances and their mixtures

FIREPLACE SEALANT

Regulation of the Minister of Health of 10 August 2012 on criteria and methods of classification of chemical substances and their mixtures (Polish Journal of Laws item 1018)

Regulation of the Minister of Development of 8 September 2016 amending the Regulation on applying the restrictions mentioned under Annex XVII to the Regulation No. 1907/2006 (Polish Journal of Laws of 2016, item 1533)

Marking

Notice of the Minister of Health of 2 March 2015 on the publication of the uniform text of the Regulation of the Minister of Health on marking for the packaging of hazardous substances and hazardous mixtures and certain mixtures Regulation of the Minister of Health dated 23 January 2014 amending the Regulation on marking for the packaging of hazardous substances and hazardous mixtures and certain mixtures

Regulation of the Minister of Health dated 20 April 2012 on marking for the packaging of hazardous substances and hazardous mixtures and certain mixtures (Polish Journal of Laws item 445)

Packaging

Regulation of the Minister of Health of 10 October 2013 amending the Regulation on the categories of hazardous substances and hazardous mixtures, whose packages are to be provided with child-resistant fastening and tactile warnings (Polish Journal of Laws of 2013, item 1225).

European Union legislation

Regulation No. 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII
COMMISSION REGULATION (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH);

Occupational health and safety

Regulation of the Minister of Health of 24 July 2015 amending the Regulation on chemical substances, their mixtures, agents or technological processes having a carcinogenic or mutagenic effect in the workplace

Regulation of the Minister of Health of 24 July 2012 on chemical substances, their mixtures, agents or technological processes having a carcinogenic or mutagenic effect in the workplace (Polish Journal of Laws of 2012, item 890)

Regulation of the Minister of Health of 30 December 2004 on occupational health and safety related to the presence of chemical factors at the workplace (Polish Journal of Laws of 2005, No. 11, item 86)

Environmental protection

Environmental Protection Law Act (Polish Journal of Laws of 2016, No. 0, item 672).

Waste Act of 14 December 2012 (Polish Journal of Laws of 2013, No. 0, item 21).

Regulation of the Minister of the Environment of 9 December 2014 on waste catalog (Polish Journal of Laws of 2014, item 1923).

15.2. Chemical safety assessment

No data.

FIREPLACE SEALANT

SECTION 16. Other information

Explanation of the symbols used in the Material Safety Data Sheet for the mixture:

Skin Corr.1B – Skin corrosion Cat. 1 B
STOT SE.3 – Specific target organ toxicity – single exposure Cat. 3
H335 – May cause respiratory irritation
STOT SE 3 – Specific target organ toxicity – single exposure cat. 3
Eye Irrit. 2 - Causes eye irritation Cat.2
Flam. Liq. 2 – Flammable Liquid Category 2
EUH066 - Repeated exposure may cause skin dryness or cracking.
PBT – (substance) persistent, bioaccumulative and toxic
VPvB – (substance) very persistent and very bioaccumulative
PNEC – Predicted no-effect concentration
DN(M)EL – Derived no effect level.
LD50 – Dose required to kill half the members of a tested population.
LC50 – Concentration required to kill half the members of a tested population.
ECX - Concentration at which a X% decline in the growth or growth rate is observed.
BCF – Bioconcentration factor.

A mixture classified as toxic to target organs cat. 3 with the H335 statement at a % concentration of $\geq 20\%$.

Recommendations concerning training:

Employees are to undergo chemical OH&S training before being admitted to perform work. Workers dealing with the transportation and trading of the hazardous substance / mixture should also be trained in procedures and work safety.

Reference documents:

Material Safety Data Sheets for raw materials from the key manufacturers
Regulations mentioned under item 15.

The mixture was classified using the bridging principle, according to Article 9 of the Regulation (EC) No. 1272/2008.

Material Safety Data Sheet updates: Section: 3, 13, 15.

Filler grain size:

Carbon black: 5 μm – 100 μm
Graphite: 5 μm – 100 μm
Aluminum oxide: 5 μm – 100 μm

This information is based on the current state of LAKMA SAT Sp. z o.o.'s knowledge and is presented to describe the product from the point of

view of safety requirements. It may not be interpreted as a guarantee of its properties. The user is responsible for checking the suitability of the product for specific applications and making sure the workstation is safe, as well as for compliance with all the applicable regulations.

The Material Safety Data Sheet has been prepared by LAKMA SAT sp. z o.o.