



SAFETY DATA SHEET

5681 | LEAD BISILICATE

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

Trade Name:	Lead Bisilicate Frit
Chemical Name:	Frit
Synonyms:	None

2. Composition /information on ingredients

Component	CAS	EINECS	% of composition
Frits, chemicals	65997-18-4	2660476	>95 (57% as Pb)

The product is labelled as 'Toxic' due to lead being classified as a Category 1 reproductive toxin (see section 15)

3. Hazards Identification

Inhalation	Excessive exposure may cause damage to the lungs and kidneys, chronic disease and lead poisoning.
Ingestion	The product is partially soluble in body fluids but is likely to be of low acute toxicity.
Eyes	May cause physical irritation and inflammation.
Skin	The material is not a primary irritant but as with any abrasive powder it may give rise to minor irritation.
Environment	Considered of low toxicity (low solubility lead frit).

4. First Aid Measures

Inhalation	Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion	Do not induce vomiting, seek medical advice.
Eyes	Wash immediately with copious amounts of water.
Skin	Wash affected areas with water.



5. Fire Fighting Hazards

Extinguishing media	Suitable for surrounding fire conditions.
Special Exposure hazard	In the event of fire, the product may emit harmful or toxic fumes.
Personal protective equipment	Self contained breathing apparatus.

6. Accidental Release Measure

Leaks and Spills	Use suitable equipment where reasonably practicable, otherwise, damp down and scoop into a receptacle.
Personal protective equipment	Respiratory protective equipment.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material.
Storage	Store in dry area away from foodstuff.

8. Exposure Control/Personal Protection

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded.	
Personal protective equipment	Where necessary suitable personal protection should be used (eg overalls, gloves, particulate filter respirator to EN143 or EN149, eye protection for dusts to EN166.)	
UK Occupational exposure limits (Refer to HSE Guidance note EH40)	Mg/m ³ 8 hr TWA	% in product
Lead compounds (as Pb)	0.15	57

9. Physical & Chemical Properties

Appearance and Odour	Off-white powder odourless
Flash point (°C)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidizing properties	None
Specific gravity	3.5
pH value	7 (insoluble in water)
Melting point (°C)	Not available



10. Stability & Reactivity

Chemical stability	The material is stable
Conditions/materials to avoid	None known
Hazardous decomposition products	None known
Hazardous polymerization products	None

11. Toxicological Information

Acute toxicology	LD50 Oral (rat)	Not known
	LD50 Dermal	Not known
	LC50 Inhalation	Not known
Health effects	Prolonged or repeated exposure above occupational exposure standards may cause lead to accumulate in the body. In serious cases may cause anaemia and damage to the kidneys, central system and impair reproductive fertility. Lead in the blood of pregnant may affect the development of the unborn child. Persons exposed to lead compounds should have regular health checks which should include lead in blood monitoring.	

12. Ecological Information

Ecotoxicity	Not known
Persistence	The product is chemically stable and will persist in the environment.

13. Disposal Considerations

Dispose in accordance with current waste Disposal regulations (for UK – Control of Pollution {special Waste} Regulations 1980). Landfill is the most appropriate method.

14. Transport Information

UN/SI No	Not restricted	
UN Class	Not restricted	
Packing group	Not restricted	
Road	UK	Not restricted
	ADR	Not restricted
Sea	IMO	Not restricted
Air	ICAO	Not restricted



15. Regulatory Information

EC Supply Labelling	Toxic T	(in accordance with CHIP 2)
R Phrases	R61	May cause harm to unborn child.
	R20/22	Harmful by inhalation and if swallowed.
	R33	Danger of cumulative effects.
	R62	Possible risk of impaired fertility.
S phrases	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
	S53	Avoid exposure – obtain special instructions before use.

All products containing lead compounds are subject to the Control of Lead at Work Regulations via the corresponding HSC Approved Code of Practice.

In accordance with HSE Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

16. Other Information

References	
COSHH ACOP	HSC approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994
CHIP 96	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOPS	HSC Approved Code of Practice for Safety data sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40	HSE Guidance not EH40 on Occupational Exposure Limits to be used in conjunction with the COSHH regulations.