ALMANDINE GARNET

The substance is not classified as hazardous under the CLP Regulation (1272/2008/EC) or as dangerous under the Dangerous Substances Directive (67/548/EEC), is not persistent bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) as defined in Annex XIII of the REACH Regulation, and is not included in the ECHA candidate list of substances of very high concern. Therefore provision of a Safety Data Sheet (SDS) is not mandatory. This Substance Information Sheet (SIS) is a voluntary presentation of certain information that may assist the user in the handling of the substance.

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

1.1 Product Identifier

Product Name:	Almandine Garnet
Product Description:	Ferro Aluminium Silicate
CAS:	1302-62-1
Registration Number:	Exempted in accordance with Annex V.7

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

Product use:	Filtration media, filtration support media.

1.3 Details of supplier of the safety data sheet

CAS Filtration Ltd, Eastfield Road, South Killingholme, Immingham, DN40 3NF, United Kingdom

Email address of person:	info@casfiltration.com (Dr Gerry Bourke is responsible for this SIS)

1.4 Emergency telephone number of the supplier

Telephone number:	Phone +44 (0) 1469 551204 or Fax +44 (0) 1469 571644
Hours of Operation:	Office hours

SECTION 2: Hazards identification

2.1 Classification of substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Classification: Not classified

Classification according to Directive 67/548/EC (DSD)

Classification: Not classified

2.2 Label Elements

2.2.1 Labeling according to Regulation (EC) No. 1272/2008

None

2.2.2 Labeling according to Directive 67/548/EEC

None

2.3 Other hazards

The substance does not meet the criteria for a PBT or a vPvB substance.
Use of this material may generate dust.
The level of respirable crystalline silica is less than 1 % and therefore classification is not warranted.

SECTION 3: Composition/information on ingredients

3.1

Product/Ingredient Name	Identifiers	%	Classification		Type
			67/548/EEC	1272/2008 [CLP]	
Almandine	CAS: 1302-62-1	>97%	Not Classified	Not Classified	[*]
Ilmenite	EC: 235-334-8 CAS: 12168-52-4	<2%	Not Classified	Not Classified	[B]
Quartz	EC: 238-878-4 CAS: 14808-60-7	<0.5%	Not Classified	Not Classified	[B]

Type
[*] Substance
[A] Constituent
[B] Impurity
[C] Stabilizing additive

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Do not rub eyes. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation: Move to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact: Use general hygiene measure for contact with the material.

Ingestion: Wash out mouth with water. Move to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities if water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

The product may cause temporary mechanical irritation to the eyes, nose throat and lungs. The effects may be delayed.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use an extinguishing agent appropriate to the surrounding materials.

Unsuitable extinguishing media: None known

5.2 Special Hazards arising from the substance or mixture

Hazards from the substance/mixture: No specific hazard

5.3 Advice for fire-fighters

Fire fighters should wear appropriate protective clothing and self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions

Avoid breathing dust. Put on appropriate personal protective equipment.

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

6.3 Methods and material for containment and clean up.

Ventilate the area thoroughly. Vacuum or sweep up material and place in suitable container for recycling or disposal.

6.4 References to other sections

Section 1 for emergency contact information
Section 8 for information on appropriate personal protective equipment.
Section 13 for Waste disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting.

7.2 Conditions for safe storage including incompatibilities

Paper packaging should be kept dry.

7.3 Specific end uses

Check identified uses in section 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust, respirable crystalline silica dust).

Product/component name	Exposure Limit Values
Almandine	EH40/2005 WELs (United Kingdom (UK)). TWA: 4mg/m^3 8 hours. Form: Respirable dust TWA: 10mg/m^3 8 hours. Form: Total dust

The OEL (Occupational Exposure Limit) for respirable quartz dust is 0.1 mg/m^3 in the United Kingdom, measured as an 8 hour TWA (Time Weighted Average). For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

8.2 Exposure controls

Risk management measures aimed at the protection of human health are to be considered in cases of inhalation of powder or dusts during use. Process enclosures, local exhaust ventilation or other engineering controls should be employed to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment: Wear suitable protective clothing.

Hand protection:	Wear suitable gloves. Where necessary, gauntlets should be worn to protect against abrasive ricochet.
Respiratory protection:	Use properly fitted respiratory protection, complying with an approved standard, appropriate for the known or anticipated exposure levels and the hazards of the product.
Eye/face protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to dusts. If operating conditions cause high dust concentrations wear dust goggles.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practices. Wash hands, forearms and face thoroughly before eating or smoking and at the end of the working period. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of the environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1 Information on the basic physical and chemical properties

Appearance	Solid, sub-angular particles. Colour: Pink – reddish brown
Odour	Odourless
Odour threshold	Not applicable
pH	Not applicable
Melting point	1250-1315°C
Initial boiling point and range	Not applicable
Flash Point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Non-flammable
Upper/lower flammability or explosive limits	Not applicable
Vapour pressure	Not applicable
Vapour density	Not applicable
Relative Density (ref water at 20°C)	4.1
Solubility	Insoluble
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable
Explosive properties	Not applicable
Oxidising properties	Non-oxidising

9.2 Other information

SECTION 10: Stability and reactivity

10.1	Reactivity:	Non reactive
10.2	Chemical stability:	Stable under normal conditions of use, storage and transport
10.3	Possibility of hazardous reactions:	No dangerous reactions known

10.4	Conditions to avoid:	Avoid creating dusty conditions and prevent wind dispersal
10.5	Incompatible materials:	Not applicable
10.6	Hazardous decomposition products:	No hazardous decomposition products should be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:	Not available
Irritation/Corrosion:	
Skin:	Not irritating/corrosive
Eyes:	Not irritating/corrosive
Sensitiser:	
Skin:	No known significant effects or critical hazards
Respiratory:	No known significant effects or critical hazards
Mutagenicity:	No known significant effects or critical hazards
Carcingenicity:	No known significant effects or critical hazards
ReproductiveToxicity:	No known significant effects or critical hazards
STOT (single exposure):	Not available
STOT (repeated exposure):	Not available
Aspiration Hazard:	Not available

SECTION 12: Ecological information

12.1	Toxicity	No known significant effects or critical hazards
12.2	Persistence and degradability	Not readily biodegradable
12.3	Bioaccumulative potential	Not available
12.4	Mobility in soil	Not available
12.5	Results of PBT and vPvB assessment	Not applicable
12.6	Other adverse effects	No known significant effects or critical hazards

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste should not be disposed of by release to sewers.

The material, as supplied, may be disposed under LOW code (EWC code) 01 04 09 Waste sand and clays. Once used as filtration media it may be disposed of under the following LOW Code 19 09 01 solid waste from primary filtration and screenings

Waste packaging should be recycled where possible. Empty bags may contain some product residues.

SECTION 14: Transport information

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not applicable
14.3	Transport hazard classes	Not applicable
14.4	Packaging group	Not applicable
14.5	Environmental hazards	Not applicable
14.6	Special precautions for user	Not applicable
	Transport in bulk according to Annex II of MARPOL73/78 and the IBC code	Not applicable

SECTION 15: Regulatory information

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

Not applicable

15.1.1	Chemical Safety Assessment	Not Applicable
15.2	Registration status	Not applicable

SECTION 16: Other information

Abbreviations and acronyms:

CLP=	Classification, Labeling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL=	Derived No Effect Level
EWC=	European Waste Catalogue
LOW=	List of Wastes (List of Wastes Regulations 2005)
PNEC=	Predicted No Effect Concentration

Key literature references and sources of data:

Workplace Exposure Limits -2005. HSE EH40/2005
Workplace Exposure Limits –Supplement 2007. HSE EH40/2005
EC Commission Directive 2001/58/EC
EC Commission Regulation 1907/2006
and amendment EC 987/2008

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