



Safety Data Sheet
CERA-FUSION ARMOR

Date of preparation: 26/FEB/2025

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	CERA-FUSION ARMOR
Intended use:	Foundry material.
Manufacturer:	Castables Limited 47 Grand Vue Road Kawaha Point Rotorua 3010 New Zealand Ph 027 234 0 432
Emergency Telephone:	0800 764 766 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.

SIGNAL WORD: DANGER

Hazard Classifications:

6.1D - Substances which are acutely toxic.

6.3A - Substances that are irritating to the skin.

6.9A (Repeated exposure) - Substances that is toxic to human target organs or systems

8.3A - Substances that are corrosive to ocular tissue.



Hazard Statement(s):

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H350 May cause cancer by inhalation.

H372 Causes damage to organs through prolonged or repeated exposure by inhalation.

Statements:

Prevention Precautionary Statements:	P102 Keep out of reach of children. P103 Read label before use. P260 Do not breathe dust, fume, gas, mist, vapours or spray. P264 Wash hands, face and all exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.
Response Precautionary Statement:	P101 If medical advice is needed, have product container or label at hand. P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTRE or doctor/physician. P363 Wash contaminated clothing before reuse.
Precaution Storage Statement:	P405 - Store locked up.
Precautionary Statement Disposal:	P501 - Dispose of contents/container to local and national regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance(s) classified as Hazardous are listed below with concentration band-ranges. Substance(s) classified as non-hazardous, inert or covered by listed hazard codes below maybe withheld, to protect trade secrets.

Components:	CAS Number	Proportion	Hazard Codes
Silica binder*	-	10 - 20%	H302, H315, H318
Silica, vitreous	60676-86-0	40 - 60%	H350 , H372
Other inert ingredients	-	20 - 60%	-

**The specific composition of the silica binder is proprietary. The hazardous classifications listed reflect the known risks of the material.*

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (New Zealand 0800 764 766) or a doctor.

First Aid:

Inhalation:	P304+P340 Move person into fresh air and rest in a comfortable position for breathing. Keep at rest until fully recovered. Seek medical advice if effects persist
Eye contact:	P305+P351+P338 - Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.
Skin contact:	P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Ingestion:	P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Rinse mouth. Do NOT induce vomiting.

5. FIRE FIGHTING MEASURES

Extinguishing Media:	Use an appropriate fire extinguisher for the surrounding environment.
Specific hazards arising from the substance or mixture:	Burning can produce irritating, toxic and obnoxious fumes.
Special protective equipment and precautions for fire-fighters:	Self-contained breathing apparatus. Wear suitable protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions for clean up:	Slippery when spilled. Avoid accidents, and clean up immediately. Wear protective equipment to prevent skin and eye contact. Avoid raising dust. Wear suitable respiratory equipment when necessary.
Emergency procedures / Environmental precautions:	Clear area of all unprotected personnel.
Minor Spills:	Mop up the spill and wash the area with water. Can be neutralised with dilute acid.
Major spills:	Contain the spill. Collect material using a suitable absorbent material such as sand. Shovel into clean, dry, labelled containers for disposal. Do not allow material to enter waterways. If contamination of sewers or waterways has occurred advise local emergency services. Can be neutralised with dilute acid.

7. HANDLING AND STORAGE

Precautions for safe handling:	Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children.
Conditions for safe storage, including any incompatibilities:	Store in a cool, dry, well-ventilated place and out of direct sunlight. Keep containers tightly closed. Incompatible with acids, Ethylene oxide, chlorine trifluoride, Strong oxidizing agents Incompatible with these metals while in a liquid state: aluminium, brass, bronze, copper, tin, zinc.
Specific end use(s):	Foundry material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Wear: protective clothing, impervious gloves, goggles, respirator, and appropriate footwear.



Personal Protective Equipment (PPE):	Protective clothing. Impervious gloves. Goggles. Respirator (meeting the requirements of AS/NZS 1715 and AS/NZS 1716). Appropriate footwear.
Precaution:	Always wash your hands before smoking, eating, drinking, or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. If the dry product is broken or crushed, dust may become airborne. Avoid inhaling dust (silica present) by wearing a respirator.
Prevention:	If determined by a risk assessment an inhalation risk exists, wear a suitable respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716

Workplace Exposure Standards:

National occupational exposure limits:	Exposure limits - No value assigned for this specific material by WorkSafe New Zealand. Ensure airborne silica exposure remains below WorkSafe NZ's recommended limits for respirable crystalline silica dust.
---	---

Appropriate engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered, and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant

Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Beige
Solubility:	Miscible with water.
Specific Gravity:	1.8~1.9 @20°C
Relative Vapour Density (air=1):	Not available
Vapor Pressure (20 °C):	Not available
Flash Point (°C):	Not applicable
Flammability Limits (%):	Not available
Autoignition Temperature (°C):	Not available
Boiling Point/Range (°C):	Not available
pH:	Strongly alkaline (pH range 11-12)

10. STABILITY AND REACTIVITY

Reactivity:	None under normal processing
Chemical stability:	Stable under normal conditions
Possibility of hazardous reactions:	None under normal processing
Conditions to avoid:	None under normal processing
Incompatible materials:	Stable under normal handling conditions. Avoid contact with strong oxidizers. Incompatible (while in a liquid state): aluminium, brass, bronze, copper, tin, zinc.
Hazardous decomposition products:	None under normal processing

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute toxicity:	No toxicity data is available for this product.
Skin contact:	Contact with skin will result in irritation. Repeated or prolonged skin contact may lead to irritant contact dermatitis.
Eye contact:	A severe eye irritant. Contamination of the eyes can result in permanent injury.
Ingestion:	Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
Inhalation:	Material irritates the mucous membranes of the respiratory tract (airways). Inhalation can cause headaches. Breathing of dust may cause shortness of breath and aggravate asthma and inflammatory or fibrotic pulmonary disease. Prolonged inhalation of silica dust may lead to silicosis, a progressive and potentially fatal lung disease.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Avoid contaminating waterways.
Ecotoxicity in the soil environment:	Classified as non-hazardous
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

Disposal methods:	Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor. Normally suitable for disposal at approved land waste sites after dilution or neutralization.
Disposal of packaging:	Empty containers can be sent for disposal or recycling.

14. TRANSPORT INFORMATION

Road and Rail Transport:	Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.
Marine Transport:	Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.
Air Transport:	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:	Classified as hazardous according to criteria in the HS (Minimum Degrees of Hazard) Regulations 2001.
Subclasses:	6.1D - Substances which are acutely toxic. 6.3A - Substances that are irritating to the skin. 6.9A (Repeated exposure) - Substances that is toxic to human target organs or systems 8.3A - Substances that are corrosive to ocular tissue.
Hazard Statement(s):	H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation. H350 May cause cancer by inhalation. H372 Causes damage to organs through prolonged or repeated exposure by inhalation.

16. OTHER INFORMATION

Training:	Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.
Disclaimer:	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage, and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.