



TERRAFUSE INC.

Safety Data Sheet TF Structural Part B

SECTION 1: Identification

1.1 Product identifier

Product name TF Structural Part B

1.2 Other means of identification

TF Structural, Juice, Liquid Activator

1.4 Supplier's details

Name Terrafuse Inc.
Address 1325 Hastings Cres. SE
Calgary AB T2G 4C8
Canada

Telephone 403-243-3000
Fax 403-243-3050
email info@terrafuse.ca

1.5 Emergency phone number(s)

CANUTEC 1-888-CANUTEC (226-8832)
CHEMTREC USA 800-424-9300

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Specific target organ toxicity (single exposure), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Warning

Safety Data Sheet

TF Structural Part B

Hazard statement(s)

H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness

Precautionary statement(s)

P261	Avoid breathing mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P280	Wear eye protection/face protection/protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Potassium silicate

Concentration	1 - 5 % (weight), Trade secret
CAS no.	1312-76-1

Trade secret statement (OSHA 1910.1200(i))

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician/doctor if necessary. Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. Show this material safety data sheet to the doctor in attendance.
If inhaled	Product is not readily volatile, and inhalation hazards are unlikely. Remove patient from exposure, keep warm and at rest. Obtain medical attention.
In case of skin contact	Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.
In case of eye contact	Immediately flush with plenty of running water for at least 15 minutes, occasionally holding eyelids apart. If eye irritation persists: Get medical advice/attention.

Safety Data Sheet

TF Structural Part B

If swallowed

If swallowed, wash out mouth, and give lukewarm water (pint/ 1/2 liter) if victim is completely conscious/alert. Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

Personal protective equipment for first-aid responders

Use gloves, and eye protection if potential for chemical exposure exists. Remove victim to fresh air, and remove any contaminated clothing.

4.2 Most important symptoms/effects, acute and delayed

Alkaline. The toxicity of potassium silicate is dependent on the silica to alkali ratio and on the pH. This is a highly dilute solution, and toxicity is very unlikely.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptoms as they arise.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Compatible with all standard fire fighting techniques.

5.2 Specific hazards arising from the chemical

No special hazards exist during a fire.

5.3 Special protective actions for fire-fighters

Wear full protective clothing and self-contained breathing apparatus. Use water spray to keep fire exposed containers cool.

Further information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. For large-scale spills, ensure full personal protection is worn. Keep unauthorized personnel from the spillage area. Note this product may produce a slip hazard. Ventilate area and remove sources of ignition. Follow prescribed procedures for responding to large spills and reporting to authorities.

6.2 Environmental precautions

Prevent this product from entering water courses or drainage system. Do not flush to sewer. Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

Caution - spillages may be slippery. Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery.

Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

Safety Data Sheet

TF Structural Part B

7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Avoid generation of mist. Provide adequate ventilation. Emergency shower and eye wash facilities should be readily available.
See Also Section 8

7.2 Conditions for safe storage, including any incompatibilities

Keep at a temperature not exceeding (°C): 50 Do not allow material to freeze.
Unsuitable containers: Aluminium
See Also Section 10.

Specific end use(s)

To be mixed with TF Structural only, and used as a concrete repair mortar. Can also be used alone as a concrete densifier.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Potassium silicate (CAS: 1312-76-1)

No Occupational Exposure Limit assigned.

8.2 Appropriate engineering controls

Both local exhaust and good general room ventilation should be provided to control exposure. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Avoid eye contact by wearing safety goggles. Wear appropriate protective eyeglasses or chemical safety goggles as described by Canadian CSA Eye Protection Standard Z94.3-M1982, Industrial Eye and Face Protectors.

Skin protection

Avoid skin contact by wearing chemical resistant gloves (Viton is recommended). Follow OSHA's hand protection regulations in 29 CFR 1910.138.

Body protection

Where more extensive contact may occur, wear suitable protective clothing (e.g. apron, sleeves and boots). Follow Canadian CSA Foot Protection Standard Z195-M1984, Protective Footwear.

Respiratory protection

Respiratory protection not normally required. Advice on respiratory protective equipment is given in the HSE (Health and Safety Executive) publication HS(G)53.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Light red/pink Liquid
Odor	No Odor
Odor threshold	Not applicable
pH	Alkaline, ~11
Melting point/freezing point	Not available

Safety Data Sheet

TF Structural Part B

Initial boiling point and boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable
Upper/lower flammability limits	Not applicable
Upper/lower explosive limits	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Relative density	Not available
Solubility(ies)	Soluble
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not explosive
Oxidizing properties	Not considered an oxidizing agent.

Other safety information

Additional properties may be listed in Sections 2 and 5.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Aqueous solutions will react with aluminium, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air. Can react violently if in contact with acids. Can react with sugar residues to form carbon monoxide.

10.4 Conditions to avoid

Product may etch glass if it comes into contact with it.
See Section: 10.3.

10.5 Incompatible materials

See Section: 10.3

10.6 Hazardous decomposition products

None known.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ingestion: All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) >5000 mg/kg bw

Inhalation: All symptoms of acute toxicity are due to high alkalinity. Mist is irritant to the respiratory tract. Inhalation LC50 (rat) >2.06 g/m³

Safety Data Sheet

TF Structural Part B

Skin Contact: Repeated and/or prolonged skin contact may cause slight irritation. Dermal LD50 (rat) >5000 mg/kg bw

Skin corrosion/irritation

Repeated and/or prolonged skin contact may cause slight irritation.

Serious eye damage/irritation

Liquid or mist may cause discomfort and mild irritation.

Respiratory or skin sensitization

Not sensitising.

Germ cell mutagenicity

No evidence of genotoxicity.

Carcinogenicity

No structural alerts.

Reproductive toxicity

No evidence of reproductive toxicity or developmental toxicity.

STOT-single exposure

Not classified

STOT-repeated exposure

Not classified. NOAEL oral (rat) 159 mg/kg bw/d

Aspiration hazard

Not classified

Additional information

None

SECTION 12: Ecological information

Toxicity

Fish (Leuciscus idus) LC50 (48 hour) >146 mg/l

Aquatic invertebrates: (Daphnia magna) EC50 (24 hour) >146 mg/l

Killifish, LC50 > 100 mg/L (96h).

Daphnia magna, EC50 > 100 mg/L (48h).

Algae, ErC50 > 100 mg/L (72h, velocity method).

Persistence and degradability

Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica.

Bioaccumulative potential

Inorganic. The substance has no potential for bioaccumulation.

Mobility in soil

Not available

Safety Data Sheet

TF Structural Part B

Results of PBT and vPvB assessment

Not available

Other adverse effects

The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

SECTION 13: Disposal considerations

Disposal of the product

Discharge of this product to sewage treatment works is dependent on local regulations with regard to pH controls. Dispose of this material and its container to hazardous or special waste collection point. Disposal should be in accordance with local, state or national legislation.

Disposal of contaminated packaging

The containers should be disposed of according to local regulations.

Waste treatment

The containers should be disposed of according to local regulations.

Sewage disposal

Do not dispose of in drains.

SECTION 14: Transport information

DOT (US)

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

TSCA Inventory Status: Reported/Included.

AICS Inventory Status: Reported/Included.

DSL/NDSL Inventory Status: Reported/Included.

SECTION 16: Other information

Date of revision: March 27, 2019

Updates were made to the components section

16.1 Further information/disclaimer

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information

Safety Data Sheet

TF Structural Part B

contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to chemicals contained in our products.

16.2 Preparation information

Prepared by:
Terrafuse Inc.
www.terrafuse.ca
1-855-243-8080