

**Firebreak 33 Silicone Sealant  
Material Safety Data Sheet**

**1. Identification of the preparation and company**

- i) Product Name: Firebreak 33 Fire Resistant Silicone Sealant
- ii) One component silicone sealant
- iii) Intended Use: Fire resistant gap seal  
Fire resistant penetration seal  
Fire resistant bonding material
- iv) Supplier: Neutron Fire Technologies Ltd., Shire Hall, Lostwithiel, Cornwall PL22 0BS  
U.K. Telephone: +44 (0) 1208 871185 Facsimile: +44 (0) 1208 871254

**2. Composition / information on ingredients**

Chemical nature:

- \* Blend based on polydimethylsiloxane, inert fillers and cross-linker

Components contributing to the hazard :

- \* 2-Butanone oxime (CAS: 96-29-7) : 1-5%
- EC Classification : Xn - R 21-40-41-43 (28. ATP). EINECS N° 202-496-6

Components presenting hazards :

- \* 2-Butanone-O,O',O''-(methylsilylidyne) trioxime (CAS: 22984-54-9):  
< 3 % - Self-classification : Xn; R21-36/38-43 EINECS N° 245-366-4

Further information :

- \* Additional quantities of 2-Butanone oxime will be released when the product reacts with moisture.
- \* During using, on contact with humidity in the air releases: Methanol (CAS: 67-56-1) :
- \* EC Classification : F, T – R 11-23/24/25-39/23/24/25 (28. ATP). EINECS N°: 200-659-6

**3. Hazards identification**

Adverse human health effects:

- \* Irritating to eyes.
- \* Slightly irritating to skin.
- \* Limited evidence of a carcinogenic effect.

Environmental effects:

- \* Presents no particular risk to the environment, provided the disposal requirements (see section 13) and national or local regulations are complied with.

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**PHYSICAL AND CHEMICAL HAZARDS**

Fire or explosion:

- \* Combustible.

Classification/Specific hazards:

- \* According to EC criteria, this product is classified as : - HARMFUL; IRRITANT.

Further information:

- \* After drying, may stick to the skin.

**4. First-aid measures**

General:

- \* If unconscious, place in recovery position, give nothing by mouth.

Inhalation:

- \* Remove to fresh air.
- \* If breathing is irregular or stopped, administer artificial respiration.
- \* If necessary, seek medical attention.

Eye Contact:

- \* Remove contact lenses. Whilst keeping the eyes wide open, immediately irrigate copiously with clean water for at least 15 minutes and seek medical attention.

Skin Contact:

- \* Remove contaminated clothing and wipe away excess sealant using clean absorbent materials.
- \* Wash skin thoroughly with soap and water or recognised skin cleaner.
- \* Do NOT use solvents or thinners.
- \* Seek medical attention if skin irritation persists.

Ingestion:

- \* If swallowed obtain immediate medical attention.
- \* Keep at rest.
- \* Do NOT induce vomiting.

**5. Fire-fighting measures**

Suitable Extinguishing Media:

- \* Carbon dioxide; foam; powder; water spray.

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Fire can produce dense black smoke containing hazardous products of combustion. Exposure to decomposition products may be a hazard to health. Appropriate self-containing breathing apparatus and approved protective clothing is required.

Cool packaging exposed to fire with water spray. Do not allow run off from fire fighting to enter drains or watercourses.

### 6. Accidental release measures

#### Personal Precautions:

- \* Exclude non-essential personnel. Avoid contact with skin and breathing in vapours (see protective measures in Sections 7 and 8).

#### Environmental Precautions:

- \* This product does not present any particular risk for the environment.
- \* Recover the product by scraping with a spatula or a similar instrument. Place waste in marked containers and dispose of in accordance with local regulations (see Section 13).
- \* Clean contaminated surfaces using an appropriate solvent then wash, preferably with detergents. Prevent residue from entering drains or watercourse. If materials enter drains or watercourse inform the local water authority and/or Environment Agency immediately.

### 7. Handling and storage

#### Handling:

- \* Avoid skin and eye contact and inhalation of vapour.
- \* Smoking, eating and drinking should be avoided in areas of storage or use. Wash hands before breaks and after work. For personal protection; see Section 8.
- \* Keep containers closed whilst not in use.
- \* Do not exceed occupational exposure limits (OEL's).
- \* Never use pressure to empty; the container is not a pressure vessel.
- \* Ensure good housekeeping and regular safe removal of waste materials.
- \* The Manual Handling Regulations may apply to the handling of containers/packages of this product. In order to calculate the weight of any pack size, multiply the volume in litres by the specific gravity value given in Section 9. This will give the net weight of the product in kilograms. Allowance will then have to be given to the immediate packaging to give the approximate gross weight.

#### Storage:

- \* Observe label precautions.
- \* Store in original sealed container in a dry place away from sources of heat. Protect from frost.
- \* Do not store product in proximity to food, drink or animal feed. Keep out of the reach of children.
- \* Keep the product away from oxidizing agents and strongly alkaline or acid agents.
- \* The product polymerises on contact with air.

## 8. Exposure controls / Personal protection

### Engineering measures:

- \* Ensure good ventilation of the work station.

### Occupational Exposure Limits (OEL's):

Methanol: OES: 200 ppm (266 mg/m<sup>3</sup>). (Long term exposure limit - 8h TWA reference period).  
OES: 250 ppm (333 mg/m<sup>3</sup>). (Short term exposure limit - 15 minute reference period).  
Can be absorbed through the skin.

### Personal Protection:

- \* Contact your local supplier of personal protection equipment for guidance when choosing suitable equipment for the working situation in question.
- \* All Personal Protective Equipment (ppe), including Respiratory Protective Equipment, used to control exposure to hazardous substances must be selected to meet the requirements of COSHH regulations.

### Respiratory Protection:

- \* If exposure to hazardous substances identified in section 8 cannot be controlled by the provision of natural ventilation e.g. work in enclosed areas, exposure should be controlled where reasonably practicable, by the use of mechanical exhaust ventilation; when this is not reasonably practicable, suitable respiratory protective equipment must be worn.

### Hand Protection:

- \* When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of skin but are not suitable for full physical protection. They should not be applied once exposure had occurred.

### Eye Protection:

- \* Wear suitable eye protection designed to protect against liquid splashes.

### Skin Protection:

- \* Cotton or cotton/synthetic overalls are normally suitable. Grossly contaminated clothing should always be removed and the skin washed with soap and water or a recognised skin cleaner. Always wash your hands before eating, smoking or using the toilet.

### Collective Emergency Equipment:

- \* Safety Shower: Eye fountain.

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**9. Physical and chemical properties**

- a) Physical State: Thixotropic paste
- b) Odour: Slightly amine
- c) Colour: White; Grey
- d) pH: N/A
- e) Flash Point: 140 °C (closed cup, according to method AFNOR T 60103)
- f) Auto-ignition Temperature: N/A
- g) Oxidising Properties: Non-oxidizing material according to EC criteria.
- h) Density: Approx. 1.4 g/cm<sup>3</sup> (25°C)
- j) Solubility in Water: Practically insoluble
- k) Solubility in Organic Solvents: Very slightly soluble in acetone and alcohol (ethanol)

**10. Stability and reactivity**

Stability:

- \* Stable at room temperature provided it is not in contact with air.
- \* Polymerises at room temperature on contact with moisture in the air.

Hazardous Reactions:

- \* No dangerous reactions known under normal conditions of use (see Product Data Sheet).

Hazardous Decomposition Products:

- \* On contact with humidity, during vulcanisation, releases: 2-butanone oxime - quantity potentially released < 3 % of product weight; methanol - quantity potentially released < 1 % of product weight.
- \* On combustion forms carbon oxides (CO + CO<sub>2</sub>); nitrogen oxides.

**11. Toxicological information**

Acute Toxicity:

- \* 2-Butanone oxime: LC<sub>50</sub> inhalation (Rat) / 4h: >4.83 mg/l. (published data).

Local effects:

- \* Repeated or prolonged contact may cause slight irritation to the skin.
- \* Irritating to the eyes (by calculation according to the conventional method).

Sensitisation:

- \* Not a cutaneous skins sensitizer for guinea-pigs, when tested in accordance with the Buehler method (unpublished internal reports; results based on a similar product).

Carcinogenicity:

- \* Limited evidence of a carcinogenic effect.
- \* Contains a substance classified R40 in the EEC (>1%).

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\* Liver tumours were only observed in male rats and mice exposed to high concentrations of 2-butanone oxime (MEKO).

Mutagenicity:

\* No information available.

**12. Ecological information:**

Mobility:

- \* Slightly soluble product, readily forms deposits.
- \* Ultimate destination of the product: SOIL and SEDIMENT.

Biodegradability:

\* Not biodegradable.

Bioaccumulation:

\* Not bioaccumulable.

Ecotoxicity:

\* 2-Butanone oxime: LC 50 (fish: Pimephales Promelas) / 96h: 844 mg/l. (published data).

**13. Disposal considerations**

- \* Do not allow product to enter watercourses or drains.
- \* Waste, including emptied containers, is controlled waste and should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Using information provided in this data sheet, advice should be obtained from the relevant Environment Agency whether Special Waste Regulations apply.

**14. Transport information**

Transport within the users premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

Onwards transport subsequent to purchase: Transport to be in accordance with ADR for road, IMDG for sea and ICAO/IATA for air.

Proper shipping name: The product is not classified as dangerous for carriage.

UN Number:

Hazard class:

Packaging group:

Sub-hazard class:

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### 15. Regulatory information

#### EC Labelling Regulations:

- \* Mandatory labelling (self-classification) of hazardous preparations applicable:  
Classification: HARMFULL  
Symbol: Xn

#### R Phrases:

R36	Irritating to eyes
R40	Limited evidence of carcinogenic effect

#### S Phrases:

S23	Do NOT breathe vapour
S36/37/39	Wear suitable protective clothing, gloves and eye and face protection
S51	Use only in well-ventilated areas

#### Further Data:

- \* Contains 2-Butanone oxime (>1%)

#### Additional Phrases:

- \* For use in industrial installations only

#### Further UK regulations:

- \* Handle in accordance with relevant UK legislation:  
Chemical Hazard Information and Packaging for Supply Regulations  
Control of Substances Hazardous to Health Regulations  
Environmental Protection Act  
Environmental Hygiene Guidance: EH/40 Occupational Exposure Limits (revised annually).

The information contained in this safety data sheet does not constitute the users own assessment of workplace risks as required by other health and safety legislation. The provisions of the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

### 16. Other information

#### REFERENCE DOCUMENTS: Statutory:

Chemical (Hazard Information and Packaging for Supply) (Amendment) Regulations 2002  
Air Navigation (Dangerous Substances) Regulations  
Carriage of Dangerous Goods by Road and Rails (Classification, Packaging, Labelling) Regulations 1996  
Carriage of Dangerous Goods by Road Regulations 1996 as amended



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Consumer Protection Act 1987  
Control of Pollution (Amendment) Act 1989  
Control of Substances Hazardous to Health Regulations 1999  
Environmental Protection Act 1995  
Environmental Protection (Duty of Care) Regulations 1992  
Environmental Protection Act 1990  
Factories Act 1961  
Health and Safety at Work Act 1974  
International Rail/Road Transport - RID and ADR (current editions)  
Management of Health and Safety at Work Regulations 1999  
Manual Handling Regulations 1992  
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997  
Personal Protective Equipment at Work Regulations 1992  
Protection of Eyes Regulations 1974  
Provision and use of Personal Protective Equipment Regulations 1992  
Special Waste Regulations 1996 as amended  
Waste Management Regulations 1996

This safety data sheet should be used in conjunction with technical data sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith.

The attention of the user is drawn to the possible risks incurred by using the product for any other purpose than that for which it was intended.

This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to fulfill his obligations regarding the use of hazardous products.

This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist. This is solely his/her responsibility.