Material Safety Data

1. Identification of the Substance/Preparation and the Company/Undertaking

1.1. Product identifier

Substance or preparation trade name: Welding Blanket / Roll
Unique reference numbers(s): P3630

1.2. Relevant identified uses

Protection from sparks and weld spatter

1.3. Details of the supplier of the safety data sheet

Company/undertaking name & address: Parweld Ltd, Long Bank, Bewdley, Worcs, UK
Telephone number: *+00 44 1299 266800*
Telefax: *+00 44 1299 266900*

1.4. Emergency telephone number

Emergency telephone number: *+00 44 1299 266800* (office hours only)

2. Hazards Identification

The product is safe and nontoxic under normal condition

Acute Ingestion
Ingestion of sufficient quantity can cause irritation, nausea, diarrhoea and gastrointestinal disturbances.

Acute Eye Contact
May cause temporary, moderate physical irritation. Abrasive action may cause damage to the outer surface of the eye.

Acute Skin Contact
May cause temporary, physical irritation and inflammation due to reaction to sharp, broken ends of fibers.

3. Composition / Information on Ingredients

Components	CAS Number	% By Weight
Fiberglass, continuous filament	N/A	96.50% min
Non-hazardous ingredients	N/A	3.5% max

Glass fibers can be considered as ARTICLES, as fibers are defined as articles in the manual of decisions for implementation of the sixth and seventh amendments to directive 67/548/eec on dangerous substances (EU Directives 79/831/eec and 92/32/eec) or in the USA by the American TSCA (Toxic Substances Control Act) or EPA 40 CFR 710.2 and also some other national regulations (DSL in Canada for instance).

These articles are mixtures of AR GLASS in the form of continuous strands and a SIZE with, in addition, a BINDER in the case of mats.

4. First Aid Measures

Ingestion
Ingestion is unlikely, but if it does occur DO NOT induce vomiting; drink plenty of water. Material should be excreted naturally, but if effects persists seek medical attention.

Eye Contact
If eyes become irritated, flush immediately with large amounts of lukewarm water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Do not rub eyes. Get medical attention if irritation persists.

Skin Contact
If skin becomes irritated, remove soiled clothing. Do not rub or scratch exposed skin. Wash area of contact thoroughly with soap and water. Using a skin cream or lotion after washing may be helpful.

Inhalation
Remove exposed person from source of exposure, to fresh air. Keep exposed person comfortable, warm and rested. Recovery should be rapid after removal from exposure, but if effects persist seek medical advice.

5. Fire-fighting Measures

Materials are not combustible.

Flash Point and Method: None

Flammability Limits (%): None.

Auto Ignition Temperature: Not Applicable.

Extinguishing Media: Water, foam, CO2 or dry chemical.

Unusual Fire and Explosion Hazards: None known.

Fire Fighting Instructions: Use self-contained breathing apparatus (SCBA) in a sustained fire.

Hazardous Combustion Products: Primary combustion products are carbon monoxide, carbon dioxide and water. Other undetermined compounds could be released in small quantities.

6. Accidental Release Measures

The product is stable and safe under normal conditions of use. Will not cause the accidental release. If the product is broken, waste should be placed in containers, plastic bags or other methods which will prevent fiber and/or dust emission. Whenever possible, use vacuum suction to clean up the room again. Release wastage into water is not appropriate

7. Handling and Storage

There are no special handling or storage requirements necessary.

8. Exposure Controls

The product is safe and nontoxic. When broken, the spilled fiber may cause hazards and irritation. Below are the standards of ceramic fiber spec according to different country regulation.

8.1 Occupational exposure levels (OEL)
RCF-related occupational exposure limits vary internationally. Regulatory OEL examples include: Australia – 0.5 f/cc. Canada – 0.2 to 1.0 f/cc; Denmark – 1.0 f/cc; France – 0.6 f/cc; Germany – 0.5 f/cc; Netherlands-1.0 f/cc; New Zealand – 1.0 f/cc; Norway – 2.0 f/cc; Poland – 2.0 f/cc; Sweden – 1.0 f/cc; United Kingdom – 1.0 f/cc. Non-regulatory OEL examples include: ACGIH TLV 0.2 f/cc; RCFC REG 0.5 f/cc. The objectives and criteria. Underlying each of these OEL decisions also vary. The evaluation of occupational exposure limits and determining their relative applicability to the workplace is best performed, on a case-by-case basis, by a qualified Industrial Hygienist.

8.2 Personal protection
When handling refractory Fiberglass log, precautions should be taken to avoid unnecessary breaking and hitting of the material, and to minimize activities that generate airborne dusts. Hand operated tools are preferred if cutting is unavoidable.

9. Physical and Chemical Properties

Odor and appearance: White powder

Boiling point: Not Applicable

Water solubility (%): Not Soluble in Water

Melting point: (softening) 800° C

Coating melting point (Softening): 280° C **Specific gravity**: 2.59 kg/m3

Vapor pressure: Not Applicable

PH: Not Applicable

Vapor density (Air = 1): Not Applicable

% Volatile: Not Applicable

Molecular formular: Not Applicable

10. Stability and Reactivity

Chemical stability: stable under conditions of normal use.

Incompatibility: soluble in hydrofluoric acid, phosphoric acid, and concentrated alkali.

Conditions to avoid: none.

Hazardous decomposition products: none.

Hazardous polymerization: not applicable

11. Toxicological Information

Our product is safe and nontoxic under normal condition. Only when it is broken, the spilled fiber may cause hazards, and below are the toxicological information for ceramic fiber.

Acute toxicity
not relevant

Localised effects
Possible temporary irritations
This irritation is of a purely mechanical and temporary nature. It disappears when exposure is ended. It can affect the skin, the eyes and the upper respiratory tracts. In Europe, mechanical irritation is not considered to be a health hazard within the terms of European directives 67/548/EEC for hazardous products.
This is confirmed by the fact that EC Directive 97/69/EC for mineral fibers does not stipulate the need to use an Xi (irritant) label nor a classification for continuous strand glass fibres (which in this Directive only apply to glass insulation wools in some circumstances).

Sensitisation:
Some **allergies** to continuous strand glass fibers have been declared. All sizing mixtures are tested for their wet state sensitising properties when developed and are only adopted if they have no or a very low sensitization level. In case of the allergy is confirmed, remove the person from the scene of the exposure.

Long term toxicity
Carcinogenic risks

Continuous strand glass fibers are not respirable (i.e. do not penetrate the lung alveoli). This is because fibers are over 3µm in diameter (and, mostly, over 10µm). Even after handling, the length of the finest dusts is also well over 5µm and the length / diameter ratio is greater than 3: 1. These are the values determined by the World Health Organization (WHO) for the definition of respirable fibers.

Regulatory situation
None of the following official organizations have attributed any risks of cancer during the production and use of continuous filament glass fibers:
During its congress in June, 1987, World Health Organization (WHO) through the IARC (International Agency of Research on Cancer) examined all laboratories
Studies using animals and epidemiological studies carried out on continuous strand glass reinforcement fibers.

The conclusion was that **glass filaments are not classified as to their carcinogenicity.**
They belong to the **Group 3 of IARC**. This classification has been confirmed by the IARC Working Group meeting of October 2001.
The International Labour Office (ILO) and the CSIP (Chemical Safety International Program) came to the same conclusions in a congress held in 1987.
European Commission Directive 97/69/EC dated 5/12/97, the 23rd amendment to Directive 67/548/EEC which concerns classification, packing and labeling of hazardous substances did not think it necessary to include glass fibers as having carcinogenic risks.
Most European Union member nations have transposed this Directive into their national law and adopted the same conclusions:
Country Reference of transposition documents of Directive 97/69/EC
Austria Chemikalienverordnung 1999
Belgium French implementation by « Koninklijk Besluit » of 15/1/99 published on 24/2/99

Denmark BEK N°11/1999.01.09 (Ministery of Environment)
Finland Landskapforordning 23/04/98 and 24/02/98 and List of
Hazardous Chemicals 16.12.98
France Arrêté ministériel du 28/08/98, Circulaire DRT 99/10 du 13/8/99
Germany 4th adaptation of the German Gefahrstoffverordnung 1999
Great Britain the chemicals (Hazard Information and packaging for supply)
(Amendment) Regulations1998. 6/1/99
Greece Not available
The Netherlands
Wijzigingsbesluit (Stb. 217,2001)
Ireland Statuary Instruments S.I. N°513 of 1998. European Communities
(Classification, Packaging, Labelling and Notification of Dangerous Substances) Amendment N°2
Regulation 1998. Effect on 22 December 1998.

12. Ecological Information

No ecological concerns have been identified.

AR Glass is not biodegradable.
Sizes or binders are organic materials slowly and only partial dissolved by natural agents like water. As the concentration of the ingredients in the mixture and ingredient solubility are low and as they have not been classified as hazardous, glass reinforcement strands are considered to have no adverse ecotoxicological effects.

Glass fibers and sizing products **were not listed as products** likely to destroy the **ozone layer** by the 1987 Montreal Protocol (Class 1 or Class 2). These lists are included in EC Regulation n° 3093/94 and in section VI of amendments to the "Clean Air Act" by the American Environmental Agency (EPA).

Glass fiber sizes and binders do **not contain PCB** (Polychlorinated biphenyl) or and other polyaromatic products of the same type.

13. Disposal Considerations

Waste shall be placed in containers, plastic bags or other methods which will prevent fiber or dust emission, and disposed of in accordance with the local waste disposal authority requirements, There may be specific regulations at the Local, State or Federal level that pertain to this material.

Depending on local regulations, glass fibre wastes can either be considered as **inert waste** or as **common industrial waste.** As such they can be buried in landfills approved for these categories. Glass fibers waste cannot be destroyed by incineration, and can damage incinerators by the formation of a vitrified mass.

Clean cardboard, wood, plastic (film or bags) and packaging can be eliminated.

14. Transport Information

INTERNATIONAL REGULATIONS:
Glass reinforcement fibers are not considered as hazardous goods by transport regulations.
It is not one of the 13 hazardous classes listed in international regulations.

15. Regulatory Information

UNITED STATES REGULATIONS FOR CERAMIC FIBER
EPA: Comprehensive Environmental Response, Compensation and Liability Act (**CERCLA)** and the **Clean Air Act (CAA)** - RCF contains fibers with an average diameter greater than one micron and thus is not considered a hazardous air pollutant.

European Union: **European Directive 97/69/EC** classified RCF as a Category 2 carcinogen; that is, it "should be regarded as if it is carcinogenic to man."

16. Other Information

Extensive investigations of ceramic fiber production workers have been ongoing for more than 10 years. The preliminary evidence is as follows:

(1) There is no evidence of any fibrotic lung disease (interstitial fibrosis) whatsoever on X-ray.
(2) There is no evidence of any lung disease among those employees exposed to ceramic fiber that had never smoked.
(3) A statistical "trend" was observed in measures of employee's pulmonary function who occupationally exposure to ceramic fiber, however this trend is similar to that observed in smokers who work in other industries. These observations are clinical insignificant and individual results are within the range of values obtained from the normal population.