

SAFETY DATA SHEET



RADIUS
Systems

Version: 1.0 Date: 28.03.2022

ACCORDING TO The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020
Retained CLP Regulation (EU) No. 1272/2008 as amended for Great Britain

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name:	Electrofusion Fittings
Product Type:	Polyethylene
CAS No.	25213-02-9 / 1333-86-4
EINECS No.	None Assigned
UK REACH Registration No.	None Assigned

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

Identified Use(s)	Professional / Industrial Use
Uses Advised Against	Only to be used for intended application.

1.3 Details of the supplier of the safety data sheet

Company Identification	Radius Systems Radius House Berristow Lane South Normanton Alfreton Derbyshire DE55 2JJ United Kingdom
Telephone	+44 (0) 1773 811112
E-Mail (competent person)	sales@radius-systems.com

1.4 Emergency Telephone Number

	Supplier: +44 (0) 1773 811112 Office hours: 9am-5pm Mon-Fri
Languages Spoken	English

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Retained CLP Regulation (EU) No. 1272/2008 as amended for Great Britain

Not classified as dangerous for supply or use.

2.2 Label Elements

According to Retained CLP Regulation (EU) No. 1272/2008 as amended for Great Britain

Product Name	Electrofusion Fittings
Contains	HDPE / Metal Alloy
Hazard Pictogram(s)	None
Precautionary Statement(s)	None

2.3 Other Hazards

The molten form can cause thermal burns if in contact with skin.
Eye Contact: Dust may cause irritation.

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

According to Retained CLP Regulation (EU) No. 1272/2008 as amended for Great Britain

Chemical Identity of the substance	%W/W	CAS No.	EC No.	UK REACH Registration No.	Hazard Statement(s)
Ethylene Hexene 1 Black Copolymer	>60%	25213-02-9 / 1333-86-4	None Assigned.	None assigned (Polymer)	None
Brass alloy	<40%	12597-71-6	603-111-8	None assigned	None
Lead	<1.5%	7439-92-1	231-100-4	None assigned	Repr. 1A: H360FD H362 Carcinogen 1B: H350

3.2 Additional Information: Metal alloy contains lead above the 0.1% safety limit set by UK REACH. Application is not expected to expose operators to lead. Therefore exposure is likely to be negligible.

SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, obtain medical attention.

Skin Contact

Molten material can cause severe burns. Do NOT try to peel molten material from the skin. Cool rapidly with water.

Eye Contact

Flush eyes with water for at least 15 minutes while holding eyelids Open. If symptoms persist, obtain medical attention.

Ingestion

Rinse mouth. Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

The molten form can cause thermal burns if in contact with skin.

Eye Contact: Dust may cause irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary, treat symptomatically.

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SECTION 5: FIRE-FIGHTING MEASURES

- | | | |
|------------|--|---|
| 5.1 | Extinguishing Media
Suitable Extinguishing Media

Unsuitable Extinguishing Media | Extinguish with carbon dioxide, dry chemical, foam or water spray.

Do not use water jet. |
| 5.2 | Special hazards arising from the substance or mixture | Decomposition products: Carbon monoxide, carbon dioxide. |
| 5.3 | Advice for fire fighters | Do not breathe fumes/vapour from heated product. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. |

SECTION 6: ACCIDENTAL RELEASE MEASURES

- | | | |
|------------|--|---|
| 6.1 | Personal precautions, protective equipment and Emergency procedures | Ensure adequate ventilation. Caution – Spillages may be slippery. Wear protective gloves/protective clothing/ eye protection/face Protection. |
| 6.2 | Environmental Precautions | Do not allow to enter drains, sewers or watercourses. |
| 6.3 | Methods and material for containment and cleaning up | Sweep up spilled substance. Collect spillage. Use vacuum equipment for collecting spilt materials, where practicable. Transfer to a container for disposal. |
| 6.4 | Reference to other sections | See section 8, 13. |

SECTION 7: HANDLING AND STORAGE

- | | | |
|------------|--|---|
| 7.1 | Precautions for safe handling | Ensure adequate ventilation. Take precautionary measures against static discharge. Avoid accumulation of dust. Avoid contact with heated or molten product. Wear protective gloves / protective clothing / eye Protection / face protection. See section 8: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. |
| 7.2 | Conditions for safe storage, including any Incompatibilities
Storage temperature
Storage life
Incompatible materials | Store in a cool / low-temperature, well-ventilated (dry) place. Do not store in direct sources of heat including sunlight. Ambient
Stable under normal storage conditions
Strong oxidising agents |
| 7.3 | Specific end use(s) | Professional / industrial use |

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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Ethylene Hexene 1 Black Copolymer	25213-02-9 & 1333-86-4	-	10	-	-	Inhalable Dust – UK WEL
		-	10	-	-	Inhalable Dust – US ACGIH
		-	4	-	-	Respirable Dust: UK WEL
		-	3	-	-	Respirable Dust: US ACGIH
Copper	7440-50-8	-	0.2	-	-	Respirable Dust: US ACGIH
Zinc	1314-13-2	-	5	-	-	Respirable Dust: US ACGIH
Lead	7439-92-1	-	0.05	-	-	Respirable Dust: US ACGIH

WEL: Workplace Exposure Limit (UK HSE EH40)
ACGIH: American Conference of Industrial Hygienists

8.1.2 Biological Limit Value

Not established

8.1.3 PNECs and DNELs

Not established

8.2 Exposure Controls

8.2.1 Appropriate engineering controls

Local Exhaust recommended.

8.2.2 Individual protection measures, such as Personal protective equipment

Eye / Face protection

Wear suitable eye / face protection. Wear eye protection with side protection (EN166)



Skin protection (Hand protection/Other)

Wear impervious gloves (EN374).



Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. a suitable dust mask or dust respirator with filter type P (EN143 or EN405) may be appropriate.



Thermal Hazards

When dealing with heated material: Wear insulating gloves EN407 (heat).

8.2.3 Environmental exposure controls

No special measures are required.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Solid Plastic Article
Colour	Black
Odour	Odourless
Odour Threshold	Not established
pH	Not applicable
Melting point / Range	50-170°C
Initial boiling point and boiling range	Not available
Flash point	>300°C
Evaporation rate	Not applicable
Flammability (solid / gas)	Polymer will burn but does not easily ignite
Upper/Lower flammability or explosive limits	Not applicable
Vapour pressure	Not applicable
Vapour density	No applicable
Density	≈ 0.9-0.97 g cm ⁻³
Solubility	Insoluble in water
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	>300°C
Decomposition temperature	>250°C
Viscosity	Not applicable
Explosive properties	Not explosive
Oxidising properties	Oxidising

9.2 Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Upon prolonged heating above 250°C decomposition products may be released. High concentrations of vapour may be irritant to the respiratory tract.
10.2	Chemical Stability	Stable under normal conditions.
10.3	Possibility of hazardous reactions	Dust may form explosive mixtures with air.
10.4	Conditions to avoid	Avoid contact with strong oxidizers, excessive heat, sparks or open flame.
10.5	Incompatible materials	Strong oxidising agents.
10.6	Hazardous Decomposition Product(s)	Carbon monoxide, Carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	Acute toxicity	Low acute toxicity.
	Skin corrosion/irritation	Non-irritant. The molten form can cause thermal burns if in contact with skin.
	Serious eye damage/irritation	Dust may cause irritation.
	Respiratory or skin sensitization	It is not a skin sensitiser.
	Germ cell mutagenicity	There is no mutagenic potential.
	Carcinogenicity	No evidence of carcinogenicity.
	Reproductive toxicity	Not classified.
	STOT – single exposure	None anticipated.
	STOT – repeated exposure	None anticipated.
	Aspiration hazard	Not classified.
11.2	Other information	None.

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SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	Low toxicity to aquatic organisms.
12.2	Persistence and degradability	The product is not biodegradable.
12.3	Bio accumulative potential	The product has no potential for bio accumulation.
12.4	Mobility in soil	Insoluble in water. The product is predicted to have low mobility in soil.
12.5	Results of PBT and VPVB assessment	Not classified as PBT or vPvB.
12.6	Other adverse effects	None.

SECTION 13: PHYSICAL AND CHEMICAL PROPERTIES

13.1	Waste treatment methods	Recover or recycle if possible. Bury on an authorised landfill site or incinerate under approved controlled conditions.
13.2	Additional information	Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport.

14.1	UN number	Not applicable.
14.2	UN Proper Shipping Name	Not applicable.
14.3	Transport hazard class(es)	Not applicable.
14.4	Packing Group	Not applicable.
14.5	Environmental Hazards	Not applicable.
14.6	Special precautions for user	Not applicable.
14.7	Transport in bulk according to Annex II of Marpol and the IBC code	Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1	UK regulations	
	Authorisations and/or restrictions on use	
	Candidate list of Substances of Very High Concern for authorisation.	Lead content in brass alloy is classified as SVHC by UK REACH.
	REACH: ANNEX XIV list of substances subject to authorisation.	Not listed.
	REACH: ANNEX XIV Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not listed.
	Community Rolling Action Plan (CoRAP)	
15.1.2	National Regulations	Not listed.
		Not available.
15.2	Chemical Safety Assessment	Not available.

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SECTION 16: OTHER INFORMATION

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	Persistent Bio Accumulative and Toxic
vPvB	very Persistent and very Bio accumulative
SVHC	Substance of Very High Concern

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Prepared by Radius Systems

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