



J-B Weld™ Syringe Original - Part B

JRP Distribution Ltd

Version No: 10.23

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Issue Date: 10/25/2023

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S.REACH.GB.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier

Product name	J-B Weld™ Syringe Original - Part B
Synonyms	50165 (J-B Weld™ Syringe Original) Part B
Other means of identification	UFI:3VWF-N4TU-Q00Y-M3C9

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

Relevant identified uses	Use according to manufacturer's directions.
Uses advised against	No specific uses advised against are identified.

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	JRP Distribution Ltd
Address	Unit 10A, Business Park, City Fields Way Tangmere PO20 2FT United Kingdom
Telephone	+44 1903 750355
Fax	903-885-5911
Website	www.jbweld.com
Email	info@jbweld.com

1.4. Emergency telephone number

Association / Organisation	Department of Health & Social Care (DHSC)
Emergency telephone numbers	112
Other emergency telephone numbers	Not Available

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H302 - Acute Toxicity (Oral) Category 4, H315 - Skin Corrosion/Irritation Category 2, H317 - Sensitisation (Skin) Category 1, H318 - Serious Eye Damage/Eye Irritation Category 1, H334 - Sensitisation (Respiratory) Category 1, H350i - Carcinogenicity Category 1A, H360Df - Reproductive Toxicity Category 1A, H373 - Specific Target Organ Toxicity - Repeated Exposure Category 2, H413 - Hazardous to the Aquatic Environment Long-Term Hazard Category 4
Legend:	1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

2.2. Label elements

Hazard pictogram(s)	
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Signal word	Danger
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Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350i	May cause cancer by inhalation.

J-B Weld™ Syringe Original - Part B

H360Df	May damage the unborn child. Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure. (Respiratory system) (Inhalation)
H413	May cause long lasting harmful effects to aquatic life.

Supplementary statement(s)

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
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Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P304+P340	IF INHALED: Remove person to fresh air and keep 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.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P310	Immediately call a POISON CENTER/doctor/physician/first aider.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician/first aider.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.
P330	Rinse mouth.

Precautionary statement(s) Storage

P405	Store locked up.
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Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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2.3. Other hazards

4-nonylphenol, branched	Listed in the European Chemicals Agency (ECHA) Candidate List of Substances of Very High Concern for Authorisation
4-nonylphenol, branched	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605
salicylic acid	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605
p-tert-butylphenol	Listed in the European Chemicals Agency (ECHA) Candidate List of Substances of Very High Concern for Authorisation
p-tert-butylphenol	Determined to have endocrine-disrupting properties according to Europe Regulation (EU) 528/2012, Europe Regulation (EU) 2017/2100, and Europe Regulation (EU) 2018/605
methanol	Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (Restrictions may apply)

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 100-51-6* 2.202-859-9 3.603-057-00-5 4.Not Available	10-30	<u>benzyl alcohol</u>	Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1; H312, H332, H302, H319, H317, EUH019 ^[1]	Not Available	Not Available
1. 135108-88-2* 2.Not Available 3.Not Available 4.Not Available	10-20	<u>formaldehyde/ benzenamine, hydrogenated</u>	Skin Corrosion/Irritation Category 1C, Specific Target Organ Toxicity - Repeated Exposure Category 2, Corrosive to Metals Category 1, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Oral) Category 4; H314, H373,	Not Available	Not Available

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J-B Weld™ Syringe Original - Part B

1. CAS No 2. EC No 3. Index No 4. REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
			H290, H318, H302 [1]		
1. 112-57-2* 2. 203-986-2 3. 612-060-00-0 4. Not Available	1-5	<u>tetraethylenepentamine</u>	Skin Corrosion/Irritation Category 1B, Acute Toxicity (Dermal) Category 4, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Oral) Category 4, Sensitisation (Skin) Category 1; H314, H312, H318, H302, H317 [1]	Not Available	Not Available
1. 68953-36-6* 2. 273-201-6 3. Not Available 4. Not Available	5-15	<u>tail oil/ tetraethylenepentamine polyamides</u>	Corrosive to Metals Category 1, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Oral) Category 4, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1, Skin Corrosion/Irritation Category 1A; H290, H318, H302, H317, H410, H314 [1]	Not Available	Not Available
1. 84852-15-3 2. 284-325-5 3. 601-053-00-8 4. Not Available	10-20	<u>4-nonylphenol, branched [e]</u>	Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1B, Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Acute Hazard Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 1; H302, H314, H361fd, H400, H410 [2]	Not Available	Not Available
1. 25068-38-6* 2. 500-033-5 3. 603-074-00-8 4. Not Available	1-10	<u>bisphenol A diglycidyl ether polymer</u>	Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1B; H335, H315, H319, H317 [1]	Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit 2; H315: C ≥ 5 %	Not Available
1. 1302-78-9 2. 215-108-5 3. Not Available 4. Not Available	1-10	<u>C.I. Pigment White 19</u>	Not Applicable	Not Available	Not Available
1. 7439-89-6 2. 231-096-4 3. Not Available 4. Not Available	1-5	<u>iron</u>	Not Classified [3]	Not Available	Not Available
1. 71074-89-0* 2. 275-162-0 3. Not Available 4. Not Available	<1	<u>bis[(dimethylamino)methyl]phenol</u>	Serious Eye Damage/Eye Irritation Category 1; H318 [1]	Not Available	Not Available
1. 90-72-2* 2. 202-013-9 3. 603-069-00-0 4. Not Available	1-5	<u>2,4,6-tris[(dimethylamino)methyl]phenol</u>	Skin Corrosion/Irritation Category 1C, Serious Eye Damage/Eye Irritation Category 1; H314, H318 [1]	Not Available	Not Available
1. 3033-62-3* 2. 221-220-5 3. Not Available 4. Not Available	1-5	<u>bis(2-dimethylaminoethyl)ether</u>	Acute Toxicity (Dermal) Category 3, Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4; H311, H314, H318, H332, H302 [1]	Not Available	Not Available
1. 69-72-7* 2. 200-712-3 3. 607-732-00-5 4. Not Available	<1	<u>salicylic acid [e]</u>	Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2; H318, H335, H302, H315 [1]	Not Available	Not Available
1. 2855-13-2* 2. 220-666-8 3. 612-067-00-9 4. Not Available	5-15	<u>isophorone diamine</u>	Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Acute Toxicity (Dermal) Category 4, Serious Eye Damage/Eye Irritation Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1; H336, H312, H318, H335, H302, H315, H317 [1]	oral: ATE = 1 030 mg/kg bw Skin Sens. 1A; H317: C ≥ 0,001 %	Not Available
1. 98-54-4* 2. 202-679-0 3. 604-090-00-8 4. Not Available	1-10	<u>p-tert-butylphenol [e]</u>	Serious Eye Damage/Eye Irritation Category 1, Skin Corrosion/Irritation Category 2, Reproductive Toxicity Category 1A; H318, H315, H360Df [1]	M=1	Not Available

J-B Weld™ Syringe Original - Part B

1. CAS No 2. EC No 3. Index No 4. REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 38294-64-3 2. 500-101-4 3. Not Available 4. Not Available	1-5	<u>bisphenol A diglycidyl ether isophorone diamine adduct</u>	Not Classified [3]	Not Available	Not Available
1. 1760-24-3* 2. 217-164-6 3. Not Available 4. Not Available	1-5	<u>N-[3-(trimethoxysilyl)propyl]ethylenediamine</u>	Sensitisation (Respiratory) Category 1, Serious Eye Damage/Eye Irritation Category 1, Sensitisation (Skin) Category 1; H334, H318, H317, EUH018 [1]	Not Available	Not Available
1. 67-56-1 2. 200-659-6 3. 603-001-00-X 4. Not Available	<0.1	<u>methanol</u> * -	Flammable Liquids Category 2, Acute Toxicity (Oral) Category 3, Acute Toxicity (Dermal) Category 3, Acute Toxicity (Inhalation) Category 3, Specific Target Organ Toxicity - Single Exposure Category 1; H225, H301, H311, H331, H370 [2]	* STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	Not Available
1. 13463-67-7* 2. 236-675-5 3. 022-006-00-2 4. Not Available	1-5	<u>titanium dioxide</u>	Carcinogenicity Category 1A, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2; H350i, H332, H315, H319 [1]	Not Available	Not Available
Legend:		1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties			

SECTION 4 First aid measures

4.1. Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▶ Immediately hold eyelids apart and flush the eye continuously with running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ Transport to hospital or doctor without delay. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary.
Ingestion	▶ IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. ▶ For advice, contact a Poisons Information Centre or a doctor. ▶ Urgent hospital treatment is likely to be needed. ▶ In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. ▶ If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. ▶ If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: ▶ INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

SECTION 5 Firefighting measures

5.1. Extinguishing media

Metal dust fires need to be smothered with sand, inert dry powders.

DO NOT USE WATER, CO2 or FOAM.

- ▶ Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- ▶ **DO NOT** use halogenated fire extinguishing agents.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Reacts with acids producing flammable / explosive hydrogen (H2) gas ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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J-B Weld™ Syringe Original - Part B

5.3. Advice for firefighters

Fire Fighting	▶ Alert Fire Department and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves.
Fire/Explosion Hazard	▶ DO NOT disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal. ▶ DO NOT use water or foam as generation of explosive hydrogen may result. Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO₂) metal oxides other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid contact with skin and eyes. ▶ Wear impervious gloves and safety goggles.
Major Spills	▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area.
Fire and explosion protection	See section 5
Other information	▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	· Imidazole may be regarded as possessing pyrrole and pyridine like properties and therefore its reactivity might resemble that of the others. In general imidazole, in common with pyrazole, is less reactive than pyrrole and more reactive than benzene. · One peculiarity of imidazole is the impossibility to distinguish the two nitrogen atoms in solution. ▶ Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air. ▶ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. ▶ Phenols are incompatible with strong reducing substances such as hydrides, nitrides, alkali metals, and sulfides. ▶ Avoid use of aluminium, copper and brass alloys in storage and process equipment. ▶ Heat is generated by the acid-base reaction between phenols and bases. Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but: ▶ can react exothermically with oxidising acids to form noxious gases. ▶ Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air. ▶ Safe handling is possible in relatively low concentrations of oxygen in an inert gas. ▶ Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact. ▶ Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products. ▶ Elemental metals may react with azo/diazo compounds to form explosive products. ▶ Some elemental metals form explosive products with halogenated hydrocarbons.
Hazard categories in accordance with Regulation (EC) No 1272/2008	Not Available

J-B Weld™ Syringe Original - Part B

Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of

Not Available

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
benzyl alcohol	Dermal 8 mg/kg bw/day (Systemic, Chronic) Inhalation 22 mg/m ³ (Systemic, Chronic) Dermal 40 mg/kg bw/day (Systemic, Acute) Inhalation 110 mg/m ³ (Systemic, Acute) <i>Dermal 4 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 5.4 mg/m³ (Systemic, Chronic) *</i> <i>Oral 4 mg/kg bw/day (Systemic, Chronic) *</i> <i>Dermal 20 mg/kg bw/day (Systemic, Acute) *</i> <i>Inhalation 27 mg/m³ (Systemic, Acute) *</i> <i>Oral 20 mg/kg bw/day (Systemic, Acute) *</i>	1 mg/L (Water (Fresh)) 2.3 mg/L (Water - Intermittent release) 0.1 mg/L (Water (Marine)) 5.27 mg/kg sediment dw (Sediment (Fresh Water)) 0.527 mg/kg sediment dw (Sediment (Marine)) 0.456 mg/kg soil dw (Soil) 39 mg/L (STP)
formaldehyde/ benzenamine, hydrogenated	Dermal 2 mg/kg bw/day (Systemic, Chronic) Inhalation 0.2 mg/m ³ (Systemic, Chronic) Dermal 6 mg/kg bw/day (Systemic, Acute) Inhalation 2 mg/m ³ (Systemic, Acute)	0.015 mg/L (Water (Fresh)) 0.15 mg/L (Water - Intermittent release) 0.002 mg/L (Water (Marine)) 15 mg/kg sediment dw (Sediment (Fresh Water)) 1.5 mg/kg sediment dw (Sediment (Marine)) 1.8 mg/kg soil dw (Soil) 1.9 mg/L (STP)
4-nonylphenol, branched	Dermal 7.5 mg/kg bw/day (Systemic, Chronic) Inhalation 0.5 mg/m ³ (Systemic, Chronic) Dermal 15 mg/kg bw/day (Systemic, Acute) Inhalation 1 mg/m ³ (Systemic, Acute) <i>Dermal 3.8 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 0.4 mg/m³ (Systemic, Chronic) *</i> <i>Oral 0.08 mg/kg bw/day (Systemic, Chronic) *</i> <i>Dermal 7.6 mg/kg bw/day (Systemic, Acute) *</i> <i>Inhalation 0.8 mg/m³ (Systemic, Acute) *</i> <i>Oral 0.4 mg/kg bw/day (Systemic, Acute) *</i>	0.61 µg/L (Water (Fresh)) 0 mg/L (Water - Intermittent release) 0.57 µg/L (Water (Marine)) 4.62 mg/kg sediment dw (Sediment (Fresh Water)) 1.23 mg/kg sediment dw (Sediment (Marine)) 2.3 mg/kg soil dw (Soil) 9.5 mg/L (STP) 2.36 mg/kg food (Oral)
C.I. Pigment White 19	Dermal 3.05 mg/kg bw/day (Systemic, Chronic) Inhalation 3 mg/m ³ (Systemic, Chronic) Inhalation 3 mg/m ³ (Local, Chronic) Inhalation 3 mg/m ³ (Systemic, Acute) Inhalation 3 mg/m ³ (Local, Acute) <i>Dermal 1.52 mg/kg bw/day (Systemic, Chronic) *</i> <i>Oral 1.52 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 0.002 mg/m³ (Local, Chronic) *</i>	0.82 mg/L (Water (Fresh)) 25 mg/L (Water - Intermittent release) 0.082 mg/L (Water (Marine))
iron	Inhalation 3 mg/m ³ (Local, Chronic) <i>Oral 0.71 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 1.5 mg/m³ (Local, Chronic) *</i>	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Dermal 0.15 mg/kg bw/day (Systemic, Chronic) Inhalation 0.53 mg/m ³ (Systemic, Chronic) Dermal 0.6 mg/kg bw/day (Systemic, Acute) Inhalation 2.1 mg/m ³ (Systemic, Acute) <i>Dermal 0.075 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 0.13 mg/m³ (Systemic, Chronic) *</i> <i>Oral 0.075 mg/kg bw/day (Systemic, Chronic) *</i> <i>Dermal 0.075 mg/kg bw/day (Systemic, Acute) *</i> <i>Inhalation 0.13 mg/m³ (Systemic, Acute) *</i>	0.046 mg/L (Water (Fresh)) 0.46 mg/L (Water - Intermittent release) 0.005 mg/L (Water (Marine)) 0.262 mg/kg sediment dw (Sediment (Fresh Water)) 0.026 mg/kg sediment dw (Sediment (Marine)) 0.025 mg/kg soil dw (Soil) 0.2 mg/L (STP)
bis(2-dimethylaminoethyl)ether	Inhalation 0.16 mg/m ³ (Systemic, Chronic) Inhalation 0.08 mg/m ³ (Local, Chronic) <i>Inhalation 0.041 mg/m³ (Systemic, Chronic) *</i> <i>Oral 0.047 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 0.013 mg/m³ (Local, Chronic) *</i>	0.023 mg/L (Water (Fresh)) 0.23 mg/L (Water - Intermittent release) 0.002 mg/L (Water (Marine)) 0.019 mg/kg sediment dw (Sediment (Fresh Water)) 0.002 mg/kg sediment dw (Sediment (Marine)) 0.007 mg/kg soil dw (Soil) 7.2 mg/L (STP)
salicylic acid	Dermal 2.3 mg/kg bw/day (Systemic, Chronic) Inhalation 5 mg/m ³ (Systemic, Chronic) Inhalation 5 mg/m ³ (Local, Chronic) <i>Dermal 1 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 4 mg/m³ (Systemic, Chronic) *</i> <i>Oral 1 mg/kg bw/day (Systemic, Chronic) *</i> <i>Oral 4 mg/kg bw/day (Systemic, Acute) *</i>	0.2 mg/L (Water (Fresh)) 1 mg/L (Water - Intermittent release) 0.02 mg/L (Water (Marine)) 1.42 mg/kg sediment dw (Sediment (Fresh Water)) 0.142 mg/kg sediment dw (Sediment (Marine)) 0.166 mg/kg soil dw (Soil) 162 mg/L (STP)
isophorone diamine	Inhalation 0.073 mg/m ³ (Local, Chronic) Inhalation 0.073 mg/m ³ (Local, Acute) <i>Oral 0.3 mg/kg bw/day (Systemic, Chronic) *</i> <i>Oral 0.3 mg/kg bw/day (Systemic, Acute) *</i>	0.06 mg/L (Water (Fresh)) 0.23 mg/L (Water - Intermittent release) 0.006 mg/L (Water (Marine)) 5.784 mg/kg sediment dw (Sediment (Fresh Water)) 0.578 mg/kg sediment dw (Sediment (Marine)) 1.121 mg/kg soil dw (Soil) 3.18 mg/L (STP)

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J-B Weld™ Syringe Original - Part B

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
p-tert-butylphenol	Dermal 0.071 mg/kg bw/day (Systemic, Chronic) Inhalation 0.5 mg/m³ (Systemic, Chronic) Dermal 0.026 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.09 mg/m³ (Systemic, Chronic) * Oral 0.026 mg/kg bw/day (Systemic, Chronic) *	0.01 mg/L (Water (Fresh)) 0.048 mg/L (Water - Intermittent release) 0.001 mg/L (Water (Marine)) 0.27 mg/kg sediment dw (Sediment (Fresh Water)) 0.027 mg/kg sediment dw (Sediment (Marine)) 0.25 mg/kg soil dw (Soil) 1.5 mg/L (STP) 46.67 mg/kg food (Oral)
bisphenol A diglycidyl ether isophorone diamine adduct	Dermal 0.14 mg/kg bw/day (Systemic, Chronic) Inhalation 0.493 mg/m³ (Systemic, Chronic) Inhalation 9.87 mg/m³ (Systemic, Acute) Dermal 0.67 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.58 mg/m³ (Systemic, Chronic) * Oral 0.33 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.74 mg/m³ (Systemic, Acute) * Oral 0.99 mg/kg bw/day (Systemic, Acute) *	0.002 mg/L (Water (Fresh)) 0.016 mg/L (Water - Intermittent release) 0 mg/L (Water (Marine)) 10.5 mg/kg sediment dw (Sediment (Fresh Water)) 1.05 mg/kg sediment dw (Sediment (Marine)) 2.1 mg/kg soil dw (Soil) 3.1 mg/L (STP) 1 mg/kg food (Oral)
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Inhalation 130 mg/m³ (Systemic, Chronic) Inhalation 0.6 mg/m³ (Local, Chronic) Inhalation 5.36 mg/m³ (Local, Acute) Inhalation 26 mg/m³ (Systemic, Chronic) * Oral 4 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.1 mg/m³ (Local, Chronic) * Inhalation 26 400 mg/m³ (Systemic, Acute) * Inhalation 4 mg/m³ (Local, Acute) *	0.05 mg/L (Water (Fresh)) 0.072 mg/L (Water - Intermittent release) 0.005 mg/L (Water (Marine)) 0.181 mg/kg sediment dw (Sediment (Fresh Water)) 0.018 mg/kg sediment dw (Sediment (Marine)) 0.007 mg/kg soil dw (Soil) 20 mg/L (STP)
methanol	Dermal 1 601 mg/kg bw/day (Systemic, Chronic) Inhalation 11.67 mg/m³ (Systemic, Chronic) Inhalation 20 mg/m³ (Local, Chronic) Dermal 20 mg/kg bw/day (Systemic, Acute) Inhalation 130 mg/m³ (Systemic, Acute) Inhalation 40 mg/m³ (Local, Acute) Dermal 4 mg/kg bw/day (Systemic, Chronic) * Inhalation 2.9 mg/m³ (Systemic, Chronic) * Oral 1 mg/kg bw/day (Systemic, Chronic) * Inhalation 26 mg/m³ (Local, Chronic) * Dermal 4 mg/kg bw/day (Systemic, Acute) * Inhalation 26 mg/m³ (Systemic, Acute) * Oral 4 mg/kg bw/day (Systemic, Acute) * Inhalation 26 mg/m³ (Local, Acute) *	Not Available
titanium dioxide	Inhalation 0.8 mg/m³ (Local, Chronic) Inhalation 28 µg/m³ (Local, Chronic) *	Not Available

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	C.I. Pigment White 19	Kaolin, respirable dust	2 mg/m3	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	iron	Iron salts (as Fe)	1 mg/m3	2 mg/m3	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	methanol	Methanol	200 ppm / 266 mg/m3	333 mg/m3 / 250 ppm	Not Available	Sk
UK Workplace Exposure Limits (WELs).	titanium dioxide	Titanium dioxide: total inhalable	10 mg/m3	Not Available	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	titanium dioxide	Titanium dioxide: respirable	4 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
benzyl alcohol	30 ppm	52 ppm	740 ppm
tetraethylenepentamine	15 mg/m3	130 mg/m3	790 mg/m3
4-nonylphenol, branched	3.9 mg/m3	43 mg/m3	260 mg/m3
bisphenol A diglycidyl ether polymer	90 mg/m3	990 mg/m3	5,900 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
bis(2-dimethylaminoethyl)ether	0.15 ppm	1.4 ppm	8.4 ppm
p-tert-butylphenol	1.5 mg/m3	40 mg/m3	240 mg/m3
N-[3-(trimethoxysilyl)propyl]ethylenediamine	23 mg/m3	250 mg/m3	1,500 mg/m3
methanol	Not Available	Not Available	Not Available
titanium dioxide	30 mg/m3	330 mg/m3	2,000 mg/m3

Ingredient	Original IDLH	Revised IDLH
benzyl alcohol	Not Available	Not Available

J-B Weld™ Syringe Original - Part B

Ingredient	Original IDLH	Revised IDLH
formaldehyde/ benzenamine, hydrogenated	Not Available	Not Available
tetraethylenepentamine	Not Available	Not Available
tall oil/ tetraethylenepentamine polyamides	Not Available	Not Available
4-nonylphenol, branched	Not Available	Not Available
bisphenol A diglycidyl ether polymer	Not Available	Not Available
C.I. Pigment White 19	Not Available	Not Available
iron	Not Available	Not Available
bis[(dimethylamino)methyl]phenol	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available	Not Available
bis(2-dimethylaminoethyl)ether	Not Available	Not Available
salicylic acid	Not Available	Not Available
isophorone diamine	Not Available	Not Available
p-tert-butylphenol	Not Available	Not Available
bisphenol A diglycidyl ether isophorone diamine adduct	Not Available	Not Available
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Not Available	Not Available
methanol	6,000 ppm	Not Available
titanium dioxide	5,000 mg/m3	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
benzyl alcohol	E	≤ 0.1 ppm
formaldehyde/ benzenamine, hydrogenated	E	≤ 0.1 ppm
tetraethylenepentamine	E	≤ 0.1 ppm
tall oil/ tetraethylenepentamine polyamides	E	≤ 0.1 ppm
4-nonylphenol, branched	E	≤ 0.1 ppm
bisphenol A diglycidyl ether polymer	E	≤ 0.1 ppm
bis(2-dimethylaminoethyl)ether	E	≤ 0.1 ppm
salicylic acid	E	≤ 0.01 mg/m³
isophorone diamine	E	≤ 0.1 ppm
p-tert-butylphenol	E	≤ 0.01 mg/m³
bisphenol A diglycidyl ether isophorone diamine adduct	D	> 0.1 to ≤ 1 ppm
N-[3-(trimethoxysilyl)propyl]ethylenediamine	D	> 0.1 to ≤ 1 ppm

Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. ▶ Avoid ignition sources. ▶ Good housekeeping practices must be maintained.
8.2.2. Individual protection measures, such as personal protective equipment	
Eye and face protection	▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	NOTE: ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. When handling liquid-grade epoxy resins wear chemically protective gloves, boots and aprons. The performance, based on breakthrough times, of: · Ethyl Vinyl Alcohol (EVAL laminate) is generally excellent · Butyl Rubber ranges from excellent to good · Nitrile Butyl Rubber (NBR) from excellent to fair. · Neoprene from excellent to fair · Polyvinyl (PVC) from excellent to poor As defined in ASTM F-739-96 · Excellent breakthrough time > 480 min · Good breakthrough time > 20 min

Continued...

J-B Weld™ Syringe Original - Part B

	· Fair breakthrough time < 20 min · Poor glove material degradation Gloves should be tested against each resin system prior to making a selection of the most suitable type.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream.

Respiratory protection

Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Blue-Gray Paste		
Physical state	Free-flowing Paste	Relative density (Water = 1)	1.0-1.2
Odor	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1.Reactivity	See section 7.2
10.2. Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

Continued...

J-B Weld™ Syringe Original - Part B

11.1. Information on toxicological effects

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Concentrated solutions of many cationics may cause corrosive damage to mucous membranes and the oesophagus. Nausea and vomiting (sometimes bloody) may follow ingestion. Nonionic surfactants may produce localised irritation of the oral or gastrointestinal lining and induce vomiting and mild diarrhoea.
Skin Contact	Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Cationic surfactants cause skin irritation, and, in high concentrations, caustic burns. Non-ionic surfactants cause less irritation than other surfactants as they have less ability to denature protein in the skin. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage. Many cationic surfactants are very irritating to the eyes at low concentration. Concentrated solutions can cause severe burns with permanent clouding. Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant.
Chronic	Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer. Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Ample evidence exists that developmental disorders are directly caused by human exposure to the material. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. For some reactive diluents, prolonged or repeated skin contact may result in absorption of potentially harmful amounts or allergic skin reactions. Exposure to some reactive diluents (notably, neopentylglycol diglycidyl ether, CAS RN: 17557-23-2) has caused cancer in some animal testing. Exposure to alkyl phenolics is associated with reduced sperm count and fertility in males. Prolonged or repeated skin contact may cause degreasing, followed by drying, cracking and skin inflammation. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Long-term exposure to phenol derivatives can cause skin inflammation, loss of appetite and weight, weakness, muscle aches and pain, liver damage, dark urine, loss of nails, skin eruptions, diarrhoea, nervous disorders with headache, salivation, fainting, discolouration of the skin and eyes, vertigo and mental disorders, and damage to the liver and kidneys.

J-B Weld™ Syringe Original - Part B	TOXICITY	IRRITATION
	Not Available	Not Available
benzyl alcohol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2000 mg/kg ^[2]	Eye (rabbit): 0.75 mg open SEVERE
	Inhalation (Rat)LC50: >4178 mg/m3/4h ^[2]	Eye: adverse effect observed (irritating) ^[1]
	Inhalation (Rat)LC50: 1000 ppm/8h ^[2]	Skin (man): 16 mg/48h-mild
	Inhalation (Rat)LCLo: 2000 ppm/4h ^[2]	Skin (rabbit):10 mg/24h open-mild
	Oral (Rat) LD50: 1230 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
formaldehyde/ benzenamine, hydrogenated	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1000 mg/kg ^[1]	Skin: adverse effect observed (corrosive) ^[1]
	Oral (Rat) LD50: >50<300 mg/kg ^[1]	
tetraethylenepentamine	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 660 mg/kg ^[2]	Eye (rabbit): 100 mg/24h moderate
	Oral (Rat) LD50: 3990 mg/kg ^[2]	Eye (rabbit): 5 mg moderate
		Skin (rabbit): 495 mg SEVERE
		Skin (rabbit): 5 mg/24h SEVERE
tall oil/ tetraethylenepentamine polyamides	TOXICITY	IRRITATION
	Oral (Rat) LD50: >5000 mg/kg ^[2]	Eyes (rabbit) (-) moderate
		Skin (rabbit) (-) moderate

J-B Weld™ Syringe Original - Part B

4-nonylphenol, branched	TOXICITY		IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[2]		Eye (rabbit): 100 mg - SEVERE	
	Oral (Rat) LD50: 1000-2500 mg/kg ^[2]		Eye: adverse effect observed (irritating) ^[1]	
			Skin (rabbit): 500 mg/24h-SEVERE	
			Skin: adverse effect observed (corrosive) ^[1]	
bisphenol A diglycidyl ether polymer	TOXICITY		IRRITATION	
	dermal (rat) LD50: >1200 mg/kg ^[2]		Not Available	
	Oral (Mouse) LD50; >500 mg/kg ^[2]			
C.I. Pigment White 19	TOXICITY		IRRITATION	
	Dermal (rabbit) LD50: >2000 mg/kg ^[1]		Not Available	
	Inhalation(Rat) LC50: >2.08 mg/l4h ^[1]			
	Inhalation(Rat) LC50: >3.3 mg/l4h ^[1]			
	Oral (Cat) LD50; >1.25 mg/kg ^[2]			
	Oral (Rat) LD50: >2000 mg/kg ^[1]			
iron	TOXICITY		IRRITATION	
	Oral (Rat) LD50: 98600 mg/kg ^[2]		Not Available	
bis[(dimethylamino)methyl]phenol	TOXICITY		IRRITATION	
	Not Available		Not Available	
2,4,6-tris[(dimethylamino)methyl]phenol	TOXICITY		IRRITATION	
	dermal (rat) LD50: >973 mg/kg ^[1]		Eye: adverse effect observed (irreversible damage) ^[1]	
	Oral (Rat) LD50: 1200 mg/kg ^[2]		Skin: adverse effect observed (corrosive) ^[1]	
bis(2-dimethylaminoethyl)ether	TOXICITY		IRRITATION	
	Dermal (rabbit) LD50: 238 mg/kg ^[2]		Not Available	
	Inhalation(Rat) LC50: >2.204 mg/l4h ^[1]			
	Oral (Rat) LD50: 571 mg/kg ^[2]			
salicylic acid	TOXICITY		IRRITATION	
	Dermal (man) TDLo: 57 mg/kg ^[2]		Eye (rabbit): 100 mg - SEVERE	
	Intraperitoneal (Mouse) LD50: 300 mg/kg ^[2]		Eye: adverse effect observed (irritating) ^[1]	
	Intraperitoneal (Rat) LD50: 157 mg/kg ^[2]		Skin (rabbit): 500 mg/24h - mild	
	Intravenous (Mouse) LD50: 184 mg/kg ^[2]		Skin: no adverse effect observed (not irritating) ^[1]	
	Oral (Cat) LD50: 400 mg/kg ^[2]			
	Oral (man) LDLo: 50 mg/kg* ^[2]			
	Oral (Mouse) LD50; 480 mg/kg ^[2]			
	Oral (Rabbit) LD50: 1300 mg/kg ^[2]			
	Oral (Rat)LD50: 891 mg/kg ^[2]			
	Oral (Rat)TDLo: 1400 mg/kg** ^[2]			
	Subcutaneous (Mouse) LD: 520 mg/kg ^[2]			
isophorone diamine	TOXICITY		IRRITATION	
	Oral (Rat) LD50: 1030 mg/kg ^[2]		Not Available	
p-tert-butylphenol	TOXICITY		IRRITATION	
	Dermal (rabbit) LD50: 2288 mg/kg ^[2]		Eye (rabbit) 0.05 mg/24h - SEVERE	
	Oral (Rat) LD50: 2951 mg/kg ^[2]		Eye (rabbit): 10 mg - SEVERE	
			Eye: adverse effect observed (irritating) ^[1]	

J-B Weld™ Syringe Original - Part B

		Skin (rabbit): 500 mg/4h - mild
		Skin: adverse effect observed (irritating) ^[1]
bisphenol A diglycidyl ether isophorone diamine adduct	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (Rat) LD50: >=300<=2000 mg/kg ^[1]	Skin: adverse effect observed (corrosive) ^[1]
		Skin: no adverse effect observed (not irritating) ^[1]
N-[3-(trimethoxysilyl)propyl]ethylenediamine	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 16000 mg/kg ^[2]	Eye (rabbit): 15 mg SEVERE
	Intravenous (Mouse) LD50: 180 mg/kg ^[2]	Eye: adverse effect observed (irreversible damage) ^[1]
	Oral (Rat) LD50: 7460 mg/kg ^[2]	Skin (rabbit): 500 mg mild
		Skin: no adverse effect observed (not irritating) ^[1]
methanol	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 15800 mg/kg ^[2]	Eye (rabbit): 100 mg/24h-moderate
	Inhalation(Rat) LC50: 64000 ppm4h ^[2]	Eye (rabbit): 40 mg-moderate
	Oral (Rat) LD50: 5628 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
		Skin (rabbit): 20 mg/24 h-moderate
titanium dioxide	TOXICITY	IRRITATION
	Inhalation (Rat)TCLo: 0.04 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (Mouse)LD50: >10000 mg/kg * ^[2]	Skin (human): 0.3 mg /3D (int)-mild *
	Oral (Mouse)TDLo: 0.0032 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	Oral (Rat)LD50: >20000 mg/kg * ^[2]	
	Oral (Rat)TDLo: 60000 mg/kg ^[2]	
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

benzyl alcohol	Unlike benzylic alcohols, the beta-hydroxyl group of the members of benzyl alkyl alcohols contributes to break down reactions but do not undergo phase II metabolic activation. Though structurally similar to cancer causing ethyl benzene, phenethyl alcohol is only of negligible concern due to limited similarity in their pattern of activity. For benzoates: Benzyl alcohol, benzoic acid and its sodium and potassium salt have a common metabolic and excretion pathway. All but benzyl alcohol are considered to be unharmed and of low acute toxicity. They may cause slight irritation by oral, dermal or inhalation exposure except sodium benzoate which doesn't irritate the skin. Adverse reactions to fragrances in perfumes and fragranced cosmetic products include allergic contact dermatitis, irritant contact dermatitis, sensitivity to light, immediate contact reactions, and pigmented contact dermatitis. Airborne and conjugal contact dermatitis occurs. Contact allergy is a lifelong condition, so symptoms may occur on re-exposure. Fragrance allergens act as haptens, low molecular weight chemicals that cause an immune response only when attached to a carrier protein. However, not all sensitizing fragrance chemicals are directly reactive, but require previous activation. A prehapten is a chemical that itself causes little or no sensitization, but is transformed into a hapten in the skin (bioactivation), usually via enzyme catalysis. This is a member or analogue of a group of benzyl derivatives generally regarded as safe (GRAS), based partly on their self-limiting properties as flavouring substances in food. In humans and other animals, they are rapidly absorbed, broken down and excreted, with a wide safety margin. They also lack significant potential to cause genetic toxicity and mutations. The aryl alkyl alcohol (AAA) fragrance ingredients have diverse chemical structures, with similar metabolic and toxicity profiles. The AAA fragrances demonstrate low acute and subchronic toxicity by skin contact and swallowing. At concentrations likely to be encountered by consumers, AAA fragrance ingredients are non-irritating to the skin.
formaldehyde/ benzenamine, hydrogenated	Amine adducts have much reduced volatility and are less irritating to the skin and eyes than amine hardeners. However commercial amine adducts may contain a percentage of unreacted amine and all unnecessary contact should be avoided. Amine adducts are prepared by reacting excess primary amines with epoxy resin.
tetraethylenepentamine	Triethylenetetramine is a severe irritant to skin and eyes and may induce skin sensitisation. Acute exposure to saturated vapour via inhalation was tolerated without impairment but exposure to aerosol may lead to reversible irritations of the mucous membranes in the airways. Studies done on experimental animals showed that it does not cause cancer or foetal developmental defects.
tall oil/ tetraethylenepentamine polyamides	Laboratory testing shows that the fatty acid amide, cocoamide DEA, causes occupational allergic contact dermatitis, and that allergy to this substance is becoming more common. Alkanolamides are manufactured by condensation of diethanolamine and the methyl ester of long chain fatty acids. The chemicals in the Fatty Nitrogen Derived (FND) Amides are generally similar in terms of physical and chemical properties, environmental fate and toxicity. Its low acute oral toxicity is well established across all subcategories by the available data and show no apparent organ specific toxicity, mutation, reproductive or developmental defects. For quaternary ammonium compounds (QACs): Quaternary ammonium compounds are synthetically made surfactants. Studies show that its solubility, toxicity and irritation depend on chain length and bond type while effect on histamine depends on concentration. QACs may cause muscle paralysis

J-B Weld™ Syringe Original - Part B

	with no brain involvement. Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41.
4-NONYLPHENOL, BRANCHED	For nonylphenol and its compounds: Alkylphenols like nonylphenol and bisphenol A have estrogenic effects in the body. They are known as xenoestrogens. Estrogenic substances and other endocrine disruptors are compounds that have hormone-like effects in both wildlife and humans. For nonylphenol: Animal testing suggests that repeated exposure to nonylphenol may cause liver changes and kidney dysfunction. Nonylphenol was not found to cause mutations or chromosomal aberrations. Gastrointestinal changes, liver changes, effects on newborn recorded.
salicylic acid	For certain benzyl derivatives: The members of this group are rapidly absorbed through the gastrointestinal tract, metabolised primarily in the liver, and excreted primarily in the urine either unchanged or as conjugates of benzoic acid derivatives. At high dose levels, gut micro-organisms may act to produce minor amounts of breakdown products. However, no adverse effects have been reported even at repeated high doses. A member or analogue of a group of hydroxy and alkoxy-substituted benzyl derivatives generally regarded as safe (GRAS) based in part on their self-limiting properties as flavouring substances in food; their rapid absorption, metabolic detoxification, and excretion in humans and other animals, their low level of flavour use, the wide margin of safety between the conservative estimates of intake and the no-observed-adverse effect levels determined from chronic and subchronic studies and the lack of significant genotoxic and mutagenic potential. This evidence of safety is supported by the fact that the intake of benzyl derivatives as natural components of traditional foods is greater than the intake as intentionally added flavouring substances. All members of this group are aromatic primary alcohols, aldehydes, carboxylic acids or their corresponding esters or acetals. The salicylates are well absorbed by mouth, and oral bioavailability is assumed to be total. In humans, absorption through skin is more limited. The salicylates are expected to be broken down to salicylic acid, mostly in the liver, and then conjugated with glycine or glucuronide and excreted in the urine.
isophorone diamine	Isophorone diamine is a strong skin irritant, corrosive with repeated application. Frequent occupational exposure may lead to the development of allergic skin inflammation. There could be damage to the smell organ, throat and lungs following inhalational exposure. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.
p-tert-butylphenol	For p-tert-butylphenol: p-tert-butylphenol has low acute toxicity via all routes. It irritates the skin, eyes and airway. It may cause skin sensitisation in humans.
N-[3-(trimethoxysilyl)propyl]ethylenediamine	For N-[3-(trimethoxysilyl)propyl]ethylenediamine (AEPTMS) and its analogues: Animal testing shows that AEPTMS is moderately irritating to (and can sensitise) the skin and severely irritating to the eyes. It also causes salivation and laboured breathing. There is no evidence that AEPTMS causes genetic damage or reproductive or developmental toxicity to date.
titanium dioxide	* IUCLID Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. Exposure to titanium dioxide is via inhalation, swallowing or skin contact. When inhaled, it may deposit in lung tissue and lymph nodes causing dysfunction of the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle. WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
J-B Weld™ Syringe Original - Part B & N-[3-(trimethoxysilyl)propyl]ethylenediamine	Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.
J-B Weld™ Syringe Original - Part B & benzyl alcohol & tetraethylenepentamine & tall oil/ tetraethylenepentamine polyamides & isophorone diamine & BISPHENOL A DIGLYCIDYL ETHER ISOPHORONE DIAMINE ADDUCT & N-[3-(trimethoxysilyl)propyl]ethylenediamine	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
J-B Weld™ Syringe Original - Part B & tall oil/ tetraethylenepentamine polyamides	For imidazoline surfactants (amidoamine/ imidazoline - AAls) All substances within the AAI group show the same reactive groups, show similar composition of amide, imidazoline, and some dimer structures of both, with the length of original EA amines used for production as biggest difference. Inherent reactivity and toxicity is not expected to differ much between these substances. All in vivo skin irritation/corrosion studies performed on AAI substances all indicate them to be corrosive following 4 hour exposure. There do not seem to be big differences in response with the variation on EA length used for the production of the AAI.
J-B Weld™ Syringe Original - Part B & formaldehyde/ benzenamine, hydrogenated & tetraethylenepentamine & tall oil/ tetraethylenepentamine polyamides & 4-NONYLPHENOL, BRANCHED & salicylic acid & isophorone diamine & p-tert-butylphenol & BISPHENOL A DIGLYCIDYL ETHER ISOPHORONE DIAMINE ADDUCT &	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.

J-B Weld™ Syringe Original - Part B

N-[3-(trimethoxysilyl)propyl]ethylenediamine & titanium dioxide	
benzyl alcohol & salicylic acid & isophorone diamine & p-tert-butylphenol & N-[3-(trimethoxysilyl)propyl]ethylenediamine & METHANOL & titanium dioxide	The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
formaldehyde/ benzenamine, hydrogenated & C.I. PIGMENT WHITE 19 & BISPHENOL A DIGLYCIDYL ETHER ISOPHORONE DIAMINE ADDUCT & titanium dioxide	No significant acute toxicological data identified in literature search.
tetraethylenepentamine & tall oil/ tetraethylenepentamine polyamides	Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage. As such, they require careful handling. For alkyl polyamines: The alkyl polyamines cluster consists of two terminal primary and at least one secondary amine groups and are derivatives of low molecular weight ethylenediamine, propylenediamine or hexanediamine. Toxicity depends on route of exposure. Cluster members have been shown to cause skin irritation or sensitisation, eye irritation and genetic defects, but have not been shown to cause cancer. Tetraethylenepentamine (TEPA) has a low acute toxicity when taken orally and a higher toxicity via the dermal route most likely due to the corrosive nature of TEPA to the skin against neutralization by stomach acid. TEPA may be corrosive to the skin and eyes. Long term dermal application may cause thickening of the epidermis and other skin changes.
tetraethylenepentamine & tall oil/ tetraethylenepentamine polyamides & titanium dioxide	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
tetraethylenepentamine & 4-NONYLPHENOL, BRANCHED	The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.
4-NONYLPHENOL, BRANCHED & p-tert-butylphenol	These substances are intravenous anaesthetic agents. They have a very low level of acute toxicity; they may cause skin irritation. Repeated exposure may irritate the stomach.
4-NONYLPHENOL, BRANCHED & salicylic acid & p-tert-butylphenol & N-[3-(trimethoxysilyl)propyl]ethylenediamine	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Acute Toxicity	✓	Carcinogenicity	✓
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✓
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

Many chemicals may mimic or interfere with the body's hormones, known as the endocrine system. Endocrine disruptors are chemicals that can interfere with endocrine (or hormonal) systems.

Endocrine disruptors interfere with the synthesis, secretion, transport, binding, action, or elimination of natural hormones in the body. Any system in the body controlled by hormones can be derailed by hormone disruptors. Specifically, endocrine disruptors may be associated with the development of learning disabilities, deformations of the body various cancers and sexual development problems.

Endocrine disrupting chemicals cause adverse effects in animals. But limited scientific information exists on potential health problems in humans. Because people are typically exposed to multiple endocrine disruptors at the same time, assessing public health effects is difficult.

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

J-B Weld™ Syringe Original - Part B	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
benzyl alcohol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	96h	Algae or other aquatic plants	76.828mg/l	2
	EC50	72h	Algae or other aquatic plants	500mg/l	2
	EC50	48h	Crustacea	230mg/l	2
	LC50	96h	Fish	10mg/l	4
	NOEC(ECx)	336h	Fish	5.1mg/l	2
formaldehyde/ benzenamine, hydrogenated	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	43.94mg/l	2
	EC50	48h	Crustacea	15.4mg/l	2

Continued...

J-B Weld™ Syringe Original - Part B

	LC50	96h	Fish	63mg/l	2
	EC10(ECx)	72h	Algae or other aquatic plants	1.2mg/l	2
tetraethylenepentamine	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	2.1mg/l	1
	EC50	48h	Crustacea	24.1mg/l	1
	NOEC(ECx)	72h	Algae or other aquatic plants	0.5mg/l	1
tall oil/ tetraethylenepentamine polyamides	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
4-nonylphenol, branched	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	0.027-0.033mg/l	4
	EC50	48h	Crustacea	0.14mg/l	1
	EC50	96h	Algae or other aquatic plants	0.027mg/l	1
	NOEC(ECx)	672h	Crustacea	0.0039mg/l	1
	LC50	96h	Fish	0.13mg/l	Not Available
bisphenol A diglycidyl ether polymer	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	~2mg/l	2
	EC50(ECx)	24h	Crustacea	3mg/l	Not Available
	LC50	96h	Fish	2.4mg/l	Not Available
C.I. Pigment White 19	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	19000mg/l	4
	EC50	72h	Algae or other aquatic plants	410mg/l	2
	EC50	48h	Crustacea	>10000mg/l	2
	NOEC(ECx)	96h	Fish	<1.4mg/l	2
iron	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	18mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	0.00499-0.00819mg/l	4
	NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
bis[(dimethylamino)methyl]phenol	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	2.8mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	EC50(ECx)	24h	Crustacea	280mg/l	Not Available
	LC50	96h	Fish	1000mg/l	Not Available
bis(2-dimethylaminoethyl)ether	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	23mg/l	Not Available
	EC50	48h	Crustacea	102mg/l	2
	LC50	96h	Fish	100-215mg/l	Not Available
	EC50(ECx)	72h	Algae or other aquatic plants	23mg/l	Not Available
salicylic acid	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	118mg/l	2
	LC50	96h	Fish	>100mg/l	2
	NOEC(ECx)	504h	Crustacea	<1mg/l	4

Continued...

J-B Weld™ Syringe Original - Part B

isophorone diamine	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.3	7
	EC50	72h	Algae or other aquatic plants	37mg/l	1
	EC50	48h	Crustacea	14.6-21.5mg/l	4
	LC50	96h	Fish	70mg/l	1
	NOEC(ECx)	72h	Algae or other aquatic plants	1.5mg/l	1
p-tert-butylphenol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	~2.4mg/l	2
	EC50	48h	Crustacea	3.4-4.5mg/l	4
	NOEC(ECx)	3072h	Fish	0.01mg/L	2
	LC50	96h	Fish	>1mg/l	2
bisphenol A diglycidyl ether isophorone diamine adduct	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	2.5mg/l	2
	EC50	48h	Crustacea	1.59mg/l	2
	LC50	96h	Fish	1.62mg/l	2
	EC0(ECx)	48h	Crustacea	0.288mg/l	2
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	5.5mg/l	2
	EC50	48h	Crustacea	81mg/l	2
	EC50	96h	Algae or other aquatic plants	11mg/l	2
	LC50	96h	Fish	597mg/l	2
	NOEC(ECx)	72h	Fish	1.6mg/l	2
methanol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	>10000mg/l	2
	EC50	96h	Algae or other aquatic plants	14.11-20.623mg/l	4
	LC50	96h	Fish	290mg/l	2
	NOEC(ECx)	720h	Fish	0.007mg/L	4
titanium dioxide	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<1.1-9.6	7
	EC50	72h	Algae or other aquatic plants	3.75-7.58mg/l	4
	EC50	48h	Crustacea	1.9mg/l	2
	EC50	96h	Algae or other aquatic plants	179.05mg/l	2
	LC50	96h	Fish	1.85-3.06mg/l	4
	NOEC(ECx)	672h	Fish	>=0.004mg/L	2
Legend:		Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data			

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
benzyl alcohol	LOW	LOW
tetraethylenepentamine	LOW	LOW
4-nonylphenol, branched	HIGH	HIGH
2,4,6-tris[(dimethylamino)methyl]phenol	HIGH	HIGH
bis(2-dimethylaminoethyl)ether	HIGH	HIGH
salicylic acid	LOW	LOW
isophorone diamine	HIGH	HIGH
p-tert-butylphenol	HIGH	HIGH
N-[3-(trimethoxysilyl)propyl]ethylenediamine	HIGH	HIGH
methanol	LOW	LOW
titanium dioxide	HIGH	HIGH

Continued...

J-B Weld™ Syringe Original - Part B

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
benzyl alcohol	LOW (LogKOW = 1.1)
tetraethylenepentamine	LOW (LogKOW = -3.1604)
4-nonylphenol, branched	LOW (BCF = 271)
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)
bis(2-dimethylaminoethyl)ether	LOW (LogKOW = -0.5386)
salicylic acid	MEDIUM (BCF = 1000)
isophorone diamine	LOW (BCF = 3.4)
p-tert-butylphenol	LOW (BCF = 240)
N-[3-(trimethoxysilyl)propyl]ethylenediamine	LOW (LogKOW = -1.6744)
methanol	LOW (BCF = 10)
titanium dioxide	LOW (BCF = 10)

12.4. Mobility in soil

Ingredient	Mobility
benzyl alcohol	LOW (KOC = 15.66)
tetraethylenepentamine	LOW (KOC = 1098)
4-nonylphenol, branched	LOW (KOC = 56010)
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (KOC = 15130)
bis(2-dimethylaminoethyl)ether	LOW (KOC = 21.85)
salicylic acid	LOW (KOC = 23.96)
isophorone diamine	LOW (KOC = 340.4)
p-tert-butylphenol	LOW (KOC = 1912)
N-[3-(trimethoxysilyl)propyl]ethylenediamine	LOW (KOC = 6856)
methanol	HIGH (KOC = 1)
titanium dioxide	LOW (KOC = 23.74)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗
PBT Criteria fulfilled?	No		
vPvB	No		

12.6. Endocrine disrupting properties

The evidence linking adverse effects to endocrine disruptors is more compelling in the environment than it is in humans. Endocrine disruptors profoundly alter reproductive physiology of ecosystems and ultimately impact entire populations. Some endocrine-disrupting chemicals are slow to break-down in the environment. That characteristic makes them potentially hazardous over long periods of time. Some well established adverse effects of endocrine disruptors in various wildlife species include; eggshell-thinning, displayed of characteristics of the opposite sex and impaired reproductive development. Other adverse changes in wildlife species that have been suggested, but not proven include; reproductive abnormalities, immune dysfunction and skeletal deformities.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Product / Packaging disposal	- Containers may still present a chemical hazard/ danger when empty. - Return to supplier for reuse/ recycling if possible. Otherwise: - If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. DO NOT allow wash water from cleaning or process equipment to enter drains. - It may be necessary to collect all wash water for treatment before disposal. - In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. - Recycle wherever possible or consult manufacturer for recycling options. - Consult State Land Waste Authority for disposal. - Bury or incinerate residue at an approved site.
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

J-B Weld™ Syringe Original - Part B

HAZCHEM	Not Applicable
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Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number or ID number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Class	Not Applicable
	Subsidiary Hazard	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Hazard identification (Kemler)	Not Applicable
	Classification code	Not Applicable
	Hazard Label	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Tunnel Restriction Code	Not Applicable

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	ICAO/IATA Class	Not Applicable
	ICAO / IATA Subsidiary Hazard	Not Applicable
	ERG Code	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	IMDG Class	Not Applicable
	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Not Applicable	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	

J-B Weld™ Syringe Original - Part B

14.6. Special precautions for user	Classification code	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
benzyl alcohol	Not Available
formaldehyde/ benzenamine, hydrogenated	Not Available
tetraethylenepentamine	Not Available
tall oil/ tetraethylenepentamine polyamides	Not Available
4-nonylphenol, branched	Not Available
bisphenol A diglycidyl ether polymer	Not Available
C.I. Pigment White 19	Not Available
iron	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
bis(2-dimethylaminoethyl)ether	Not Available
salicylic acid	Not Available
isophorone diamine	Not Available
p-tert-butylphenol	Not Available
bisphenol A diglycidyl ether isophorone diamine adduct	Not Available
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Not Available
methanol	Not Available
titanium dioxide	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
benzyl alcohol	Not Available
formaldehyde/ benzenamine, hydrogenated	Not Available
tetraethylenepentamine	Not Available
tall oil/ tetraethylenepentamine polyamides	Not Available
4-nonylphenol, branched	Not Available
bisphenol A diglycidyl ether polymer	Not Available
C.I. Pigment White 19	Not Available
iron	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
bis(2-dimethylaminoethyl)ether	Not Available
salicylic acid	Not Available
isophorone diamine	Not Available
p-tert-butylphenol	Not Available
bisphenol A diglycidyl ether isophorone diamine adduct	Not Available
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Not Available
methanol	Not Available
titanium dioxide	Not Available

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

benzyl alcohol is found on the following regulatory lists

- Great Britain GB Biocidal Active Substances
- Great Britain GB mandatory classification and labelling (GB MCL)
- Great Britain GB mandatory classification and labelling (GB MCL) technical reports

formaldehyde/ benzenamine, hydrogenated is found on the following regulatory lists

J-B Weld™ Syringe Original - Part B

Not Applicable		
tetraethylenepentamine is found on the following regulatory lists		
Great Britain GB mandatory classification and labelling list (GB MCL)		
tall oil/ tetraethylenepentamine polyamides is found on the following regulatory lists		
Not Applicable		
4-nonylphenol, branched is found on the following regulatory lists		
Chemical Footprint Project - Chemicals of High Concern List	Great Britain GB PIC List of Chemicals - Part 2 - Chemicals qualifying for PIC notification (referred to in Article 11 of the PIC Regulation) UK REACH Candidate List of substances of very high concern (SVHC) for Authorisation	
Great Britain GB mandatory classification and labelling list (GB MCL)		
Great Britain GB PIC List of Chemicals - Part 1 - Chemicals subject to export notification procedure (referred to in Article 8 of the PIC Regulation)		
bisphenol A diglycidyl ether polymer is found on the following regulatory lists		
Chemical Footprint Project - Chemicals of High Concern List	International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)	
Great Britain GB mandatory classification and labelling list (GB MCL)		
C.I. Pigment White 19 is found on the following regulatory lists		
Chemical Footprint Project - Chemicals of High Concern List	International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS) UK Workplace Exposure Limits (WELs).	
Great Britain GB Biocidal Active Substances		
iron is found on the following regulatory lists		
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)	UK Workplace Exposure Limits (WELs).	
bis[(dimethylamino)methyl]phenol is found on the following regulatory lists		
Not Applicable		
2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists		
Great Britain GB mandatory classification and labelling list (GB MCL)		
bis(2-dimethylaminoethyl)ether is found on the following regulatory lists		
Not Applicable		
salicylic acid is found on the following regulatory lists		
FEI Equine Prohibited Substances List - Controlled Medication	Great Britain GB Biocidal Active Substances Great Britain GB mandatory classification and labelling list (GB MCL)	
FEI Equine Prohibited Substances List (EPSL)		
isophorone diamine is found on the following regulatory lists		
Great Britain GB mandatory classification and labelling (GB MCL) technical reports	Great Britain GB mandatory classification and labelling list (GB MCL)	
p-tert-butylphenol is found on the following regulatory lists		
Great Britain GB mandatory classification and labelling list (GB MCL)	UK REACH Candidate List of substances of very high concern (SVHC) for Authorisation	
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)		
bisphenol A diglycidyl ether isophorone diamine adduct is found on the following regulatory lists		
Not Applicable		
N-[3-(trimethoxysilyl)propyl]ethylenediamine is found on the following regulatory lists		
Not Applicable		
methanol is found on the following regulatory lists		
Chemical Footprint Project - Chemicals of High Concern List	UK Workplace Exposure Limits (WELs).	
Great Britain GB mandatory classification and labelling list (GB MCL)		
titanium dioxide is found on the following regulatory lists		
Chemical Footprint Project - Chemicals of High Concern List	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS) UK Workplace Exposure Limits (WELs).	
Great Britain GB mandatory classification and labelling list (GB MCL)		
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs		

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category	Not Available
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15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

National Inventory Status

National Inventory	Status
Australia - AIIIC / Australia Non-Industrial Use	No (bis[(dimethylamino)methyl]phenol)
Canada - DSL	No (bis[(dimethylamino)methyl]phenol)

J-B Weld™ Syringe Original - Part B

National Inventory	Status
Canada - NDSL	No (benzyl alcohol; formaldehyde/ benzenamine, hydrogenated; tetraethylenepentamine; tall oil/ tetraethylenepentamine polyamides; bisphenol A diglycidyl ether polymer; C.I. Pigment White 19; iron; bis[(dimethylamino)methyl]phenol; 2,4,6-tris[(dimethylamino)methyl]phenol; bis(2-dimethylaminoethyl)ether; salicylic acid; isophorone diamine; p-tert-butylphenol; bisphenol A diglycidyl ether isophorone diamine adduct; N-[3-(trimethoxysilyl)propyl]ethylenediamine; methanol; titanium dioxide)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (formaldehyde/ benzenamine, hydrogenated)
Japan - ENCS	No (formaldehyde/ benzenamine, hydrogenated; tall oil/ tetraethylenepentamine polyamides; iron; bisphenol A diglycidyl ether isophorone diamine adduct)
Korea - KECI	No (bis[(dimethylamino)methyl]phenol)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	No (bis[(dimethylamino)methyl]phenol)
Taiwan - TCSI	Yes
Mexico - INSQ	No (formaldehyde/ benzenamine, hydrogenated; tall oil/ tetraethylenepentamine polyamides; bisphenol A diglycidyl ether polymer; bis[(dimethylamino)methyl]phenol; bis(2-dimethylaminoethyl)ether; bisphenol A diglycidyl ether isophorone diamine adduct; N-[3-(trimethoxysilyl)propyl]ethylenediamine)
Vietnam - NCI	Yes
Russia - FBEPH	No (formaldehyde/ benzenamine, hydrogenated; bis[(dimethylamino)methyl]phenol)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	10/25/2023
Initial Date	10/08/2020

Full text Risk and Hazard codes

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H370	Causes damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS Version Summary

Version	Date of Update	Sections Updated
9.23	10/24/2023	Toxicological information - Acute Health (inhaled), Hazards identification - Classification, Disposal considerations - Disposal, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Exposure controls / personal protection - Exposure Standard, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Accidental release measures - Spills (major), Accidental release measures - Spills (minor), Handling and storage - Storage (storage incompatibility), Identification of the substance / mixture and of the company / undertaking - Synonyms, Name

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008	Classification Procedure
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J-B Weld™ Syringe Original - Part B

[CLP] and amendments	
Acute Toxicity (Oral) Category 4, H302	On basis of test data
Skin Corrosion/Irritation Category 2, H315	Expert judgement
Sensitisation (Skin) Category 1, H317	Minimum classification
Serious Eye Damage/Eye Irritation Category 1, H318	Minimum classification
Sensitisation (Respiratory) Category 1, H334	Calculation method
Carcinogenicity Category 1A, H350i	Calculation method
Reproductive Toxicity Category 1A, H360Df	Calculation method
Specific Target Organ Toxicity - Repeated Exposure Category 2, H373	Calculation method
Hazardous to the Aquatic Environment Long-Term Hazard Category 4, H413	Calculation method
, EUH211	Calculation method

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J-B Weld™ Syringe Original Part A

JRP Distribution Ltd

Version No: 8.9

Safety data sheet according to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

Issue Date: 10/25/2023

Print Date: 10/25/2023

S.REACH.GB.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

1.1. Product Identifier

Product name	J-B Weld™ Syringe Original Part A
Synonyms	50165 (J-B Weld™ Syringe Original) Part A
Other means of identification	Not Available

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

Relevant identified uses	Use according to manufacturer's directions.
Uses advised against	No specific uses advised against are identified.

1.3. Details of the manufacturer or supplier of the safety data sheet

Registered company name	JRP Distribution Ltd
Address	Unit 10A, Business Park, City Fields Way Tangmere PO20 2FT United Kingdom
Telephone	+44 1903 750355
Fax	903-885-5911
Website	www.jbweld.com
Email	info@jbweld.com

1.4. Emergency telephone number

Association / Organisation	Department of Health & Social Care (DHSC)
Emergency telephone numbers	112
Other emergency telephone numbers	Not Available

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]	H315 - Skin Corrosion/Irritation Category 2, H317 - Sensitisation (Skin) Category 1A, H319 - Serious Eye Damage/Eye Irritation Category 2, H335 - Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567

2.2. Label elements

Hazard pictogram(s)	
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Signal word	Warning
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Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Supplementary statement(s)

J-B Weld™ Syringe Original Part A

Not Applicable

Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P362	Take off contaminated clothing and wash before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
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 or doctor/physician if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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2.3. Other hazards

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

SECTION 3 Composition / information on ingredients

3.1.Substances

See 'Composition on ingredients' in Section 3.2

3.2.Mixtures

1. CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567	SCL / M-Factor	Nanoform Particle Characteristics
1. 25068-38-6* 2.500-033-5 3.603-074-00-8 4.Not Available	60-70	<u>bisphenol A diglycidyl ether polymer</u>	Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3 , Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1B; H335, H315, H319, H317 ^[1]	Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit 2; H315: C ≥ 5 %	Not Available
1. 9003-36-5* 2.500-006-8 3.Not Available 4.Not Available	15-25	<u>bisphenol E diglycidyl ether copolymer</u>	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1A; H315, H317 ^[1]	Not Available	Not Available
1. 2425-79-8* 2.219-371-7 3.603-072-00-7 4.Not Available	10-20	<u>1,4-butanediol diglycidyl ether</u>	Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Sensitisation (Skin) Category 1; H332, H302, H315, H319, H317 ^[1]	Not Available	Not Available
1. 67762-90-7 2.Not Available 3.Not Available 4.Not Available	1-5	<u>silica, dimethylsiloxane treated</u>	Not Classified; EUH066 ^[3]	Not Available	Not Available
1. 7439-89-6 2.231-096-4 3.Not Available 4.Not Available	1-5	<u>iron</u>	Not Classified ^[3]	Not Available	Not Available
1. 1333-86-4 2.422-130-0 435-640-3 215-609-9 3.Not Available 4.Not Available	<1	<u>carbon black</u>	Not Classified ^[3]	Not Available	Not Available
1. 1302-78-9 2.215-108-5 3.Not Available 4.Not Available	<1	<u>C.I. Pigment White 19</u>	Not Applicable	Not Available	Not Available

Legend:

1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties

J-B Weld™ Syringe Original Part A**SECTION 4 First aid measures****4.1. Description of first aid measures**

Eye Contact	If this product comes in contact with the eyes: ▶ Wash out immediately with fresh running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor, without delay.
Ingestion	▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures**5.1. Extinguishing media**

Metal dust fires need to be smothered with sand, inert dry powders.

DO NOT USE WATER, CO₂ or FOAM.

- ▶ Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- ▶ **DO NOT** use halogenated fire extinguishing agents.

5.2. Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Reacts with acids producing flammable / explosive hydrogen (H₂) gas
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5.3. Advice for firefighters

Fire Fighting	▶ Alert Fire Department and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	▶ DO NOT disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal. ▶ DO NOT use water or foam as generation of explosive hydrogen may result. ▶ When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles. ▶ When heated to extreme temperatures, (>1700 deg.C) amorphous silica can fuse. Decomposition may produce toxic fumes of: metal oxides silicon dioxide (SiO₂) May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

See section 8

6.2. Environmental precautions

See section 12

6.3. Methods and material for containment and cleaning up

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment.
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Continued...

J-B Weld™ Syringe Original Part A

Major Spills

- Moderate hazard.
- ▶ Clear area of personnel and move upwind.
 - ▶ Alert Fire Brigade and tell them location and nature of hazard.

6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Safe handling	▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ DO NOT allow clothing wet with material to stay in contact with skin
Fire and explosion protection	See section 5
Other information	

7.2. Conditions for safe storage, including any incompatibilities

Suitable container	▶ Polyethylene or polypropylene container. ▶ Packing as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	The substance may be or contains a 'metalloid' The following elements are considered to be metalloids; boron, silicon, germanium, arsenic, antimony, tellurium and (possibly) polonium The electronegativities and ionisation energies of the metalloids are between those of the metals and nonmetals, so the metalloids exhibit characteristics of both classes. The reactivity of the metalloids depends on the element with which they are reacting. For example, boron acts as a nonmetal when reacting with sodium yet as a metal when reacting with fluorine. ▶ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. Silicas: ▶ react with hydrofluoric acid to produce silicon tetrafluoride gas ▶ react with xenon hexafluoride to produce explosive xenon trioxide ▶ reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not commonplace industrial materials) and other fluorine-containing compounds ▶ may react with fluorine, chlorates ▶ are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid, vinyl acetate ▶ may react vigorously when heated with alkali carbonates. Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but: ▶ can react exothermically with oxidising acids to form noxious gases. ▶ Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air. ▶ Safe handling is possible in relatively low concentrations of oxygen in an inert gas. ▶ Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact. ▶ Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products. ▶ Elemental metals may react with azo/diazo compounds to form explosive products. ▶ Some elemental metals form explosive products with halogenated hydrocarbons.
Hazard categories in accordance with Regulation (EC) No 1272/2008	Not Available
Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of	Not Available

7.3. Specific end use(s)

See section 1.2

SECTION 8 Exposure controls / personal protection

8.1. Control parameters

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
bisphenol F diglycidyl ether copolymer	Dermal 104.15 mg/kg bw/day (Systemic, Chronic) Inhalation 29.39 mg/m ³ (Systemic, Chronic) <i>Dermal 62.5 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 8.7 mg/m³ (Systemic, Chronic) *</i> <i>Oral 6.25 mg/kg bw/day (Systemic, Chronic) *</i>	Not Available
1,4-butanediol diglycidyl ether	Dermal 6.66 mg/kg bw/day (Systemic, Chronic) Inhalation 4.7 mg/m ³ (Systemic, Chronic) <i>Dermal 3.33 mg/kg bw/day (Systemic, Chronic) *</i> <i>Inhalation 1.16 mg/m³ (Systemic, Chronic) *</i> <i>Oral 0.33 mg/kg bw/day (Systemic, Chronic) *</i>	0.024 mg/L (Water (Fresh)) 0.24 mg/L (Water - Intermittent release) 0.002 mg/L (Water (Marine)) 0.084 mg/kg sediment dw (Sediment (Fresh Water)) 0.008 mg/kg sediment dw (Sediment (Marine)) 0.003 mg/kg soil dw (Soil) 100 mg/L (STP)

Continued...

J-B Weld™ Syringe Original Part A

Ingredient	DNELs Exposure Pattern Worker	PNECs Compartment
		0.028 mg/kg food (Oral)
iron	Inhalation 3 mg/m³ (Local, Chronic) Oral 0.71 mg/kg bw/day (Systemic, Chronic) * Inhalation 1.5 mg/m³ (Local, Chronic) *	Not Available
carbon black	Inhalation 1 mg/m³ (Systemic, Chronic) Inhalation 0.06 mg/m³ (Systemic, Chronic) *	50 mg/L (Water (Fresh))
C.I. Pigment White 19	Dermal 3.05 mg/kg bw/day (Systemic, Chronic) Inhalation 3 mg/m³ (Systemic, Chronic) Inhalation 3 mg/m³ (Local, Chronic) Inhalation 3 mg/m³ (Systemic, Acute) Inhalation 3 mg/m³ (Local, Acute) Dermal 1.52 mg/kg bw/day (Systemic, Chronic) * Oral 1.52 mg/kg bw/day (Systemic, Chronic) * Inhalation 0.002 mg/m³ (Local, Chronic) *	0.82 mg/L (Water (Fresh)) 25 mg/L (Water - Intermittent release) 0.082 mg/L (Water (Marine))

* Values for General Population

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs).	iron	Iron salts (as Fe)	1 mg/m3	2 mg/m3	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	carbon black	Carbon black	3.5 mg/m3	7 mg/m3	Not Available	Not Available
UK Workplace Exposure Limits (WELs).	C.I. Pigment White 19	Kaolin, respirable dust	2 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
bisphenol A diglycidyl ether polymer	90 mg/m3	990 mg/m3	5,900 mg/m3
1,4-butanediol diglycidyl ether	16 mg/m3	170 mg/m3	220 mg/m3
silica, dimethylsiloxane treated	120 mg/m3	1,300 mg/m3	7,900 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3

Ingredient	Original IDLH	Revised IDLH
bisphenol A diglycidyl ether polymer	Not Available	Not Available
bisphenol F diglycidyl ether copolymer	Not Available	Not Available
1,4-butanediol diglycidyl ether	Not Available	Not Available
silica, dimethylsiloxane treated	Not Available	Not Available
iron	Not Available	Not Available
carbon black	1,750 mg/m3	Not Available
C.I. Pigment White 19	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
bisphenol A diglycidyl ether polymer	E	≤ 0.1 ppm
bisphenol F diglycidyl ether copolymer	E	≤ 0.1 ppm
1,4-butanediol diglycidyl ether	E	≤ 0.1 ppm

Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. ▶ Avoid ignition sources. ▶ Good housekeeping practices must be maintained.
8.2.2. Individual protection measures, such as personal protective equipment	

J-B Weld™ Syringe Original Part A

Eye and face protection	▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber NOTE: ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
Body protection	See Other protection below
Other protection	▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream.

8.2.3. Environmental exposure controls

See section 12

SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Black Liquid		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odor	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Nanoform Solubility	Not Available	Nanoform Particle Characteristics	Not Available
Particle Size	Not Available		

9.2. Other information

Not Available

SECTION 10 Stability and reactivity

10.1.Reactivity	See section 7.2
10.2. Chemical stability	▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur.

Continued...

J-B Weld™ Syringe Original Part A

10.3. Possibility of hazardous reactions	See section 7.2
10.4. Conditions to avoid	See section 7.2
10.5. Incompatible materials	See section 7.2
10.6. Hazardous decomposition products	See section 5.3

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Not normally a hazard due to non-volatile nature of product
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabling lung disease that may take years to develop. Soluble silicates do not exhibit sensitizing potential. Testing in bacterial and animal experiments have not shown any evidence of them causing mutations or birth defects.

J-B Weld™ Syringe Original Part A	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Not Available</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Not Available	Not Available		
TOXICITY	IRRITATION						
Not Available	Not Available						
bisphenol A diglycidyl ether polymer	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>dermal (rat) LD50: >1200 mg/kg^[2]</td><td>Not Available</td></tr> <tr> <td>Oral (Mouse) LD50: >500 mg/kg^[2]</td><td></td></tr> </table>	TOXICITY	IRRITATION	dermal (rat) LD50: >1200 mg/kg ^[2]	Not Available	Oral (Mouse) LD50: >500 mg/kg ^[2]	
TOXICITY	IRRITATION						
dermal (rat) LD50: >1200 mg/kg ^[2]	Not Available						
Oral (Mouse) LD50: >500 mg/kg ^[2]							
bisphenol F diglycidyl ether copolymer	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>dermal (rat) LD50: >400 mg/kg^[2]</td><td>Eye: no adverse effect observed (not irritating)^[1]</td></tr> <tr> <td>Oral (Rat) LD50: >5000 mg/kg^[2]</td><td>Skin: adverse effect observed (irritating)^[1]</td></tr> </table>	TOXICITY	IRRITATION	dermal (rat) LD50: >400 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]	Oral (Rat) LD50: >5000 mg/kg ^[2]	Skin: adverse effect observed (irritating) ^[1]
TOXICITY	IRRITATION						
dermal (rat) LD50: >400 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]						
Oral (Rat) LD50: >5000 mg/kg ^[2]	Skin: adverse effect observed (irritating) ^[1]						
1,4-butanediol diglycidyl ether	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: 1130 mg/kg^[2]</td><td>Not Available</td></tr> <tr> <td>Oral (Rat) LD50: 1118 mg/kg^[1]</td><td></td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: 1130 mg/kg ^[2]	Not Available	Oral (Rat) LD50: 1118 mg/kg ^[1]	
TOXICITY	IRRITATION						
Dermal (rabbit) LD50: 1130 mg/kg ^[2]	Not Available						
Oral (Rat) LD50: 1118 mg/kg ^[1]							
silica, dimethylsiloxane treated	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Oral (Rat) LD50: >5000 mg/kg^[2]</td><td>Eyes: 0.7/110 24hr Draize non-irritating [Cabot]</td></tr> <tr> <td></td><td>Skin: 0/8 non-irritating</td></tr> </table>	TOXICITY	IRRITATION	Oral (Rat) LD50: >5000 mg/kg ^[2]	Eyes: 0.7/110 24hr Draize non-irritating [Cabot]		Skin: 0/8 non-irritating
TOXICITY	IRRITATION						
Oral (Rat) LD50: >5000 mg/kg ^[2]	Eyes: 0.7/110 24hr Draize non-irritating [Cabot]						
	Skin: 0/8 non-irritating						
iron	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Oral (Rat) LD50: 98600 mg/kg^[2]</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Oral (Rat) LD50: 98600 mg/kg ^[2]	Not Available		
TOXICITY	IRRITATION						
Oral (Rat) LD50: 98600 mg/kg ^[2]	Not Available						
carbon black	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: >2000 mg/kg^[1]</td><td>Eye: no adverse effect observed (not irritating)^[1]</td></tr> <tr> <td>Oral (Rat) LD50: >2000 mg/kg^[1]</td><td>Skin: no adverse effect observed (not irritating)^[1]</td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]	Oral (Rat) LD50: >2000 mg/kg ^[1]	Skin: no adverse effect observed (not irritating) ^[1]
TOXICITY	IRRITATION						
Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]						
Oral (Rat) LD50: >2000 mg/kg ^[1]	Skin: no adverse effect observed (not irritating) ^[1]						
C.I. Pigment White 19	<table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Dermal (rabbit) LD50: >2000 mg/kg^[1]</td><td>Not Available</td></tr> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Not Available		
TOXICITY	IRRITATION						
Dermal (rabbit) LD50: >2000 mg/kg ^[1]	Not Available						

J-B Weld™ Syringe Original Part A

	Inhalation(Rat) LC50: >2.08 mg/l4h ^[1]	
	Inhalation(Rat) LC50: >3.3 mg/l4h ^[1]	
	Oral (Cat) LD50; >1.25 mg/kg ^[2]	
	Oral (Rat) LD50: >2000 mg/kg ^[1]	

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

J-B Weld™ Syringe Original Part A	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
J-B Weld™ Syringe Original Part A & SILICA, DIMETHYLSILOXANE TREATED	For silica amorphous: Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/d. In humans, synthetic amorphous silica (SAS) is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to SAS. Repeated exposure (without personal protection) may cause mechanical irritation of the eye and drying/cracking of the skin. When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated.
CARBON BLACK & C.I. PIGMENT WHITE 19	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

11.2 Information on other hazards

11.2.1. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

11.2.2. Other information

See Section 11.1

SECTION 12 Ecological information

12.1. Toxicity

J-B Weld™ Syringe Original Part A	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
bisphenol A diglycidyl ether polymer	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	~2mg/l	2
	EC50(ECx)	24h	Crustacea	3mg/l	Not Available
	LC50	96h	Fish	2.4mg/l	Not Available
bisphenol F diglycidyl ether copolymer	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
1,4-butanediol diglycidyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	EC0(ECx)	24h	Crustacea	32mg/l	2
	LC50	96h	Fish	24mg/l	2
silica, dimethylsiloxane treated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

J-B Weld™ Syringe Original Part A

iron	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	18mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	0.00499-0.00819mg/l	4
	NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
carbon black	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
	EC50	48h	Crustacea	33.076-41.968mg/l	4
	LC50	96h	Fish	>100mg/l	2
	NOEC(ECx)	24h	Crustacea	3200mg/l	1
C.I. Pigment White 19	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	19000mg/l	4
	EC50	72h	Algae or other aquatic plants	410mg/l	2
	EC50	48h	Crustacea	>10000mg/l	2
	NOEC(ECx)	96h	Fish	<1.4mg/l	2

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

For Metal:

Atmospheric Fate - Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air.

Environmental Fate: Environmental processes, such as oxidation, the presence of acids or bases and microbiological processes, may transform insoluble metals to more soluble ionic forms. Environmental processes may enhance bioavailability and may also be important in changing solubilities.

For Amorphous Silica: Amorphous silica is chemically and biologically inert. It is not biodegradable.

Aquatic Fate: Due to its insolubility in water there is a separation at every filtration and sedimentation process.

For Silica:

Environmental Fate: Most documentation on the fate of silica in the environment concerns dissolved silica, in the aquatic environment, regardless of origin, (man-made or natural), or structure, (crystalline or amorphous).

Terrestrial Fate: Silicon makes up 25.7% of the Earth's crust, by weight, and is the second most abundant element, being exceeded only by oxygen. Silicon is not found free in nature, but occurs chiefly as the oxide and as silicates.

DO NOT discharge into sewer or waterways.

12.2. Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
1,4-butanediol diglycidyl ether	HIGH	HIGH

12.3. Bioaccumulative potential

Ingredient	Bioaccumulation
1,4-butanediol diglycidyl ether	LOW (LogKOW = -0.1458)

12.4. Mobility in soil

Ingredient	Mobility
1,4-butanediol diglycidyl ether	LOW (KOC = 10)

12.5. Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not Available	Not Available	Not Available
PBT	✗	✗	✗
vPvB	✗	✗	✗
PBT Criteria fulfilled?	No		
vPvB	No		

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties were found in the current literature.

12.7. Other adverse effects

No evidence of ozone depleting properties were found in the current literature.

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Continued...

J-B Weld™ Syringe Original Part A

Product / Packaging disposal	- Containers may still present a chemical hazard/ danger when empty. - Return to supplier for reuse/ recycling if possible. Otherwise: - If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. DO NOT allow wash water from cleaning or process equipment to enter drains. - It may be necessary to collect all wash water for treatment before disposal. - In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. - Recycle wherever possible. - Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. - Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).
Waste treatment options	Not Available
Sewage disposal options	Not Available

SECTION 14 Transport information

Note:	49CFR §171.4 (c)(1): Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car or aircraft. Non-bulk packagings are packagings containing less than 119 Gallons.
HAZCHEM	Not Applicable

Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number or ID number	Not Applicable												
14.2. UN proper shipping name	Not Applicable												
14.3. Transport hazard class(es)	<table> <tr> <td>Class</td><td>Not Applicable</td></tr> <tr> <td>Subsidiary Hazard</td><td>Not Applicable</td></tr> </table>	Class	Not Applicable	Subsidiary Hazard	Not Applicable								
Class	Not Applicable												
Subsidiary Hazard	Not Applicable												
14.4. Packing group	Not Applicable												
14.5. Environmental hazard	Not Applicable												
14.6. Special precautions for user	<table> <tr> <td>Hazard identification (Kemler)</td><td>Not Applicable</td></tr> <tr> <td>Classification code</td><td>Not Applicable</td></tr> <tr> <td>Hazard Label</td><td>Not Applicable</td></tr> <tr> <td>Special provisions</td><td>Not Applicable</td></tr> <tr> <td>Limited quantity</td><td>Not Applicable</td></tr> <tr> <td>Tunnel Restriction Code</td><td>Not Applicable</td></tr> </table>	Hazard identification (Kemler)	Not Applicable	Classification code	Not Applicable	Hazard Label	Not Applicable	Special provisions	Not Applicable	Limited quantity	Not Applicable	Tunnel Restriction Code	Not Applicable
Hazard identification (Kemler)	Not Applicable												
Classification code	Not Applicable												
Hazard Label	Not Applicable												
Special provisions	Not Applicable												
Limited quantity	Not Applicable												
Tunnel Restriction Code	Not Applicable												

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable														
14.2. UN proper shipping name	Not Applicable														
14.3. Transport hazard class(es)	<table> <tr> <td>ICAO/IATA Class</td><td>Not Applicable</td></tr> <tr> <td>ICAO / IATA Subsidiary Hazard</td><td>Not Applicable</td></tr> <tr> <td>ERG Code</td><td>Not Applicable</td></tr> </table>	ICAO/IATA Class	Not Applicable	ICAO / IATA Subsidiary Hazard	Not Applicable	ERG Code	Not Applicable								
ICAO/IATA Class	Not Applicable														
ICAO / IATA Subsidiary Hazard	Not Applicable														
ERG Code	Not Applicable														
14.4. Packing group	Not Applicable														
14.5. Environmental hazard	Not Applicable														
14.6. Special precautions for user	<table> <tr> <td>Special provisions</td><td>Not Applicable</td></tr> <tr> <td>Cargo Only Packing Instructions</td><td>Not Applicable</td></tr> <tr> <td>Cargo Only Maximum Qty / Pack</td><td>Not Applicable</td></tr> <tr> <td>Passenger and Cargo Packing Instructions</td><td>Not Applicable</td></tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td><td>Not Applicable</td></tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td><td>Not Applicable</td></tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td><td>Not Applicable</td></tr> </table>	Special provisions	Not Applicable	Cargo Only Packing Instructions	Not Applicable	Cargo Only Maximum Qty / Pack	Not Applicable	Passenger and Cargo Packing Instructions	Not Applicable	Passenger and Cargo Maximum Qty / Pack	Not Applicable	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable
Special provisions	Not Applicable														
Cargo Only Packing Instructions	Not Applicable														
Cargo Only Maximum Qty / Pack	Not Applicable														
Passenger and Cargo Packing Instructions	Not Applicable														
Passenger and Cargo Maximum Qty / Pack	Not Applicable														
Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable														
Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable														

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable
14.2. UN proper shipping name	Not Applicable

J-B Weld™ Syringe Original Part A

14.3. Transport hazard class(es)	IMDG Class	Not Applicable
	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Not Applicable	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Classification code	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
bisphenol A diglycidyl ether polymer	Not Available
bisphenol F diglycidyl ether copolymer	Not Available
1,4-butanediol diglycidyl ether	Not Available
silica, dimethylsiloxane treated	Not Available
iron	Not Available
carbon black	Not Available
C.I. Pigment White 19	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
bisphenol A diglycidyl ether polymer	Not Available
bisphenol F diglycidyl ether copolymer	Not Available
1,4-butanediol diglycidyl ether	Not Available
silica, dimethylsiloxane treated	Not Available
iron	Not Available
carbon black	Not Available
C.I. Pigment White 19	Not Available

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

bisphenol A diglycidyl ether polymer is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
Great Britain GB mandatory classification and labelling list (GB MCL)	
bisphenol F diglycidyl ether copolymer is found on the following regulatory lists	
Not Applicable	
1,4-butanediol diglycidyl ether is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	Great Britain GB mandatory classification and labelling list (GB MCL)
silica, dimethylsiloxane treated is found on the following regulatory lists	

J-B Weld™ Syringe Original Part A

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

iron is found on the following regulatory lists

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

UK Workplace Exposure Limits (WELs).

carbon black is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

UK Workplace Exposure Limits (WELs).

C.I. Pigment White 19 is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB Biocidal Active Substances

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

UK Workplace Exposure Limits (WELs).

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

Information according to 2012/18/EU (Seveso III):

Seveso Category	Not Available
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15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

National Inventory Status

National Inventory	Status
Australia - AIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (bisphenol A diglycidyl ether polymer; bisphenol F diglycidyl ether copolymer; 1,4-butanediol diglycidyl ether; silica, dimethylsiloxane treated; iron; carbon black; C.I. Pigment White 19)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (silica, dimethylsiloxane treated)
Japan - ENCS	No (iron)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (bisphenol A diglycidyl ether polymer; 1,4-butanediol diglycidyl ether)
Vietnam - NCI	Yes
Russia - FBEPH	No (silica, dimethylsiloxane treated)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	10/25/2023
Initial Date	10/15/2020

Full text Risk and Hazard codes

H302	Harmful if swallowed.
H332	Harmful if inhaled.

SDS Version Summary

Version	Date of Update	Sections Updated
7.9	10/24/2023	Toxicological information - Chronic Health, Hazards identification - Classification, Ecological Information - Environmental, Exposure controls / personal protection - Exposure Standard, Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire fighting), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Handling and storage - Storage (storage incompatibility), Identification of the substance / mixture and of the company / undertaking - Synonyms, Name

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

Continued...

J-B Weld™ Syringe Original Part A

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to regulation (EC) No 1272/2008 [CLP] and amendments	Classification Procedure
Skin Corrosion/Irritation Category 2, H315	Minimum classification
Sensitisation (Skin) Category 1A, H317	Calculation method
Serious Eye Damage/Eye Irritation Category 2, H319	Minimum classification
Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3 , H335	Calculation method

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