SAFETY DATA SHEET
ARDEX PSRS Part A

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

1.1. Product identifier

Product name ARDEX PSRS Part A

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

Identified uses Consolidation Resin

1.3. Details of the supplier of the safety data sheet

Supplier
Ardex UK Limited
Homefield Road
Haverhill
Suffolk
CB9 8QP
01440 714939

Contact person safetydatasheets@ardex.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0) 870 190 6777 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram

Signal word Warning

Hazard statements
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements	P261 Avoid breathing vapour/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391 Collect spillage. P501 Dispose of contents/ container in accordance with national regulations.
Supplemental label information	EUH205 Contains epoxy constituents. May produce an allergic reaction.
Contains	bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), Hexanedioldigycidyl ether

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) **60-100%**

CAS number: 25068-38-6

Classification
Acute Tox. 4 - H312
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

Hexanedioldigycidyl ether **10-30%**

CAS number: 16096-31-4

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

BENZYL ALCOHOL **5-10%**

CAS number: 100-51-6 EC number: 202-859-9

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Eye Irrit. 2 - H319

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

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Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

General information	No further information available.
Inhalation	This product is strongly irritating.
Ingestion	Nausea, vomiting.
Skin contact	The product contains a sensitising substance.
Eye contact	Irritating and may cause redness and pain.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.
Hazardous combustion products	Does not decompose when used and stored as recommended.

5.3. Advice for firefighters

Protective actions during firefighting	Fight fire from safe distance or protected location.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions	Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid or minimise the creation of any environmental contamination.

6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Clean contaminated objects and areas thoroughly, observing environmental regulations.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) (CAS: 25068-38-6)

DNEL Workers - Dermal; : 8.3 mg/kg/day
Workers - Inhalation; : 12.3 mg/m³

PNEC Fresh water; 0.003 mg/l
Marine water; 0.0003 mg/l

Hexanedioldigycidyl ether (CAS: 16096-31-4)

DNEL Workers - Dermal; : 2.8 mg/kg/day
Workers - Inhalation; : 2.9 mg/m³

PNEC Fresh water; 0.0115 mg/l
Marine water; 0.00115 mg/l

BENZYL ALCOHOL (CAS: 100-51-6)

DNEL Workers - Dermal; Long term : 9.5 mg/kg/day
Workers - Inhalation; Long term : 90 mg/m³

PNEC Fresh water; 1 mg/l
Marine water; 0.1 mg/l

8.2. Exposure controls

Protective equipment

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Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Wear chemical splash goggles.
Hand protection	It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). Thickness: ≥ 0.1 mm The selected gloves should have a breakthrough time of at least 8 hours.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. It is recommended to use respiratory equipment with combination filter, type A2/P2.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellowish.
Odour	Characteristic.
pH	pH (concentrated solution): 8-9
Initial boiling point and range	200°C
Flash point	>100°C
Relative density	1.12 g/cm³
Solubility(ies)	Not miscible or difficult to mix
Auto-ignition temperature	>350°C
Viscosity	700 mPa s @ 25°C
Explosive properties	Product is not explosive.

9.2. Other information

Other information	No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not determined.

10.4. Conditions to avoid

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Conditions to avoid	Avoid excessive heat for prolonged periods of time. Avoid contact with acids. Strong oxidising agents.

10.5. Incompatible materials

Materials to avoid	Strong acids. Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO_2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	15,487.71

Acute toxicity - dermal

ATE dermal (mg/kg)	1,828.38

Acute toxicity - inhalation

ATE inhalation (gases ppm)	67,014.15
ATE inhalation (vapours mg/l)	163.81
ATE inhalation (dusts/mists mg/l)	22.34

Toxicological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	20,000.0
Species	Mouse
ATE oral (mg/kg)	20,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	1,270.0
Species	Mouse
ATE dermal (mg/kg)	1,270.0

Hexanedioldigycidyl ether

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,900.0
Species	Rat
ATE oral (mg/kg)	2,900.0

BENZYL ALCOHOL

Acute toxicity - oral

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Acute toxicity oral (LD_{50} mg/kg)	1,040.0
Species	Mouse
ATE oral (mg/kg)	1,040.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,000.0
Species	Rabbit

SECTION 12: Ecological Information

12.1. Toxicity

Ecological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 1.3 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 2.8 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 96 hours: 220 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms	EC_{50}, 96 hours: 3.6 mg/l, Leuciscus idus

BENZYL ALCOHOL

Acute aquatic toxicity

Acute toxicity - fish	LC50, 96 hours: 10 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC_{50}, 24 hours: 400 mg/l, Daphnia magna

2,6-di-tert-butyl-p-cresol

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

12.2. Persistence and degradability

Persistence and degradability No further relevant information available.

Ecological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Persistence and degradability	No further relevant information available.

12.3. Bioaccumulative potential

Bioaccumulative potential No further relevant information available.

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Ecological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Mobility No further relevant information available.

Ecological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Mobility Not considered mobile.

Adsorption/desorption coefficient Soil Koc 1800 - 4400

Henry's law constant 4, 93E-05 Pa m3/mol 25°C

12.5. Results of PBT and vPvB assessment

Ecological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Ecological information on ingredients.

bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Other adverse effects Not relevant.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (ADN) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPICHLOROHYDRIN RESIN)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPICHLOROHYDRIN RESIN)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPICHLOROHYDRIN RESIN)

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Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700), BISPHENOL F EPICHLOROHYDRIN RESIN)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

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Guidance	Workplace Exposure Limits EH40. CHIP for everyone HSG228. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	1
Issued by	Research and Development Manager
Revision date	26/04/2018
SDS number	20379
Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.