



SAFETY DATA SHEET TAMREZ 200 PART A

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name TAMREZ 200 PART A

Product number - 44

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

Identified uses Extra Low Viscosity Injection Resin

1.3. Details of the supplier of the safety data sheet

Supplier NORMET UK LTD
Unit 5 Wheler Road,
Seven Stars Industrial Estate,
Coventry,
CV3 4LB
UK
+44 (0) 333 2409966
SDS@NORMET.COM

1.4. Emergency telephone number

Emergency telephone +44 (0) 207 858 1228 - 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 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements
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.

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Precautionary statements	<p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	<p>reaction product: bisphenol-A-(epichlorhydrin), 1,4-BIS(2,3-EPOXYPROPOXY)BUTANE, BISPHENOL F TYPE EPOXY RESIN</p>
Supplementary precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P391 Collect spillage.</p>

2.3. Other hazards

HSNO Classification

SECTION 3: Composition/information on ingredients

3.2. Mixtures

reaction product: bisphenol-A-(epichlorhydrin)	30-60%
CAS number: 25068-38-6	EC number: 500-033-5
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
1,4-bis(2,3-epoxypropoxy)butane	30-60%
CAS number: 2425-79-8	EC number: 219-371-7
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	

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bisphenol F-(epichlorhydrin)epoxy resin	10-30%
CAS number: 28064-14-4	EC number: 608-164-0
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention. Treat symptomatically.
Inhalation	IF INHALED: Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Do not induce vomiting.
Ingestion	IF SWALLOWED: Get medical attention immediately. If throat irritation or coughing persists, proceed as follows. Rinse mouth thoroughly with water. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Stop if the affected person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Skin contact	IF ON SKIN (or hair): Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists after washing. Remove contaminated clothing.
Eye contact	IF IN EYES: Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	Treat symptomatically. See Section 11 for additional information on health hazards.
Inhalation	Harmful if inhaled.
Ingestion	May cause stomach pain or vomiting. May cause irritation. Gastrointestinal symptoms, including upset stomach.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.

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

Notes for the doctor	Treat symptomatically.
Specific treatments	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

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Specific hazards Irritating gases or vapours.

Hazardous combustion products Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting No action shall be taken without appropriate training or involving any personal risk. Stop leak if safe to do so. If leakage cannot be stopped, evacuate area. Move containers from fire area if it can be done without risk.

Special protective equipment for firefighters Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Follow precautions for safe handling described in this safety data sheet.

For non-emergency personnel No action shall be taken involving any personal risk or without suitable training. Evaluate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up If leakage cannot be stopped, evacuate area. Move containers from spillage area. Large Spillages: Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Small Spillages: Absorb small quantities with paper towels and evaporate in a safe place. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Do not handle until all safety precautions have been read and understood. Use only in well-ventilated areas. Protect from moisture. Keep container dry. Container must be kept tightly closed when not in use. Do not eat, drink or smoke when using this product.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Provide eyewash station. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.

7.2. Conditions for safe storage, including any incompatibilities

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Storage precautions Store at temperatures between 10°C and 38°C. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures. Store away from the following materials: Acids. Alkalis.

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

Occupational exposure limits

No exposure limits known for the ingredients.

reaction product: bisphenol-A-(epichlorhydrin) (CAS: 25068-38-6)

DNEL

Workers - Dermal; Short term systemic effects: 8.33 mg/kg/day
 Workers - Inhalation; Short term systemic effects: 12.25 mg/m³
 Workers - Dermal; Long term systemic effects: 8.33 mg/kg/day
 Workers - Inhalation; Long term systemic effects: 12.25 mg/m³
 Consumer - Dermal; Short term systemic effects: 3,571 mg/kg/day
 Consumer - Oral; Short term systemic effects: 0.75 mg/kg/day
 Consumer - Dermal; Long term systemic effects: 3,571 mg/kg/day
 Consumer - Oral; Long term systemic effects: 0.75 mg/kg/day

PNEC

- Fresh water; 0.006 mg/l, with assessment factor of, 50
 - marine water; 0.0006 mg/l, with assessment factor of, 500
 - Sediment (Freshwater); 0.996 mg/kg
 - Sediment (Marinewater); 0.0996 mg/kg
 - Soil; 0.196 mg/kg
 - STP; 10 mg/l, with assessment factor of, 10
 - Water; 0.0018 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

This product is not to be used under conditions of poor ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protection

Use protective clothing, hand gloves and goggles.

Eye/face protection

Use safety glasses with side shields that are consistent with EN 166, or local equivalent, are recommended.

Hand protection

To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Nitrile rubber. Butyl rubber.

Other skin and body protection

Wear appropriate clothing to prevent skin contamination.

Hygiene measures

Wash hands thoroughly after handling. Promptly remove any clothing that becomes contaminated. Do not eat, drink or smoke when using this product.

Respiratory protection

Combination filter, type A2/P3.

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Environmental exposure controls	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not applicable.
Initial boiling point and range	Not determined.
Flash point	Not determined.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.11 - 1.17 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Not determined.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	360-540 mPa s @ 20°C
Explosive properties	Not applicable.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not applicable.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reacts with water and moisture in the air
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product: Amines.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Strong alkalis. Oxidising agents. Acids. Bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Heating may generate the following products: Carbon dioxide (CO₂). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Information given is based on data on the components and the toxicology of similar products.

Acute toxicity - oral

Notes (oral LD₅₀) >2000 mg/kg, Oral, Rat

ATE oral (mg/kg) 4,028.57

Acute toxicity - dermal

Notes (dermal LD₅₀) LD50 >2000 mg/kg, Dermal, Rabbit

ATE dermal (mg/kg) 3,142.86

Acute toxicity - inhalation

ATE inhalation (gases ppm) 12,857.14

ATE inhalation (vapours mg/l) 31.43

ATE inhalation (dusts/mists mg/l) 4.29

Skin sensitisation

Skin sensitisation Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Not available.

Genotoxicity - in vivo Not available.

Reproductive toxicity

Reproductive toxicity - fertility Not available.

Specific target organ toxicity - single exposure

STOT - single exposure Not available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not available.

Inhalation May cause respiratory tract irritation.

Skin contact Irritating to skin. May cause sensitisation by skin contact.

Eye contact Irritating to eyes.

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SECTION 12: Ecological information

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish CAS 2425-79-8:
LC₅₀, 96 hours: 19.8 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates CAS 2425-79-8:
EC₅₀, 24 hours: 32 mg/l, Daphnia magna

Acute toxicity - aquatic plants CAS 2425-79-8:
NOEC/NOEL expected to be, 72 hours: 80 mg/l, Selenastrum capricornutum

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

12.3. Bioaccumulative potential

Partition coefficient Not determined.

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Waste is classified as hazardous waste.

Disposal methods Dispose of contents/container in accordance with national regulations. Waste is classified as hazardous waste.

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. (CONTAINS reaction product: bisphenol-A-(epichlorhydrin), BISPENOL F TYPE EPOXY RESIN)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS reaction product: bisphenol-A-(epichlorhydrin), BISPENOL F TYPE EPOXY RESIN)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS reaction product: bisphenol-A-(epichlorhydrin), BISPENOL F TYPE EPOXY RESIN)

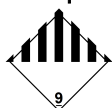
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Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS reaction product: bisphenol-A-(epichlorhydrin), BISPHENOL F TYPE EPOXY RESIN)

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
ICAO packing group	III
ADN 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	(-)

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

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National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended). EH40/2005 Workplace exposure limits. Health and Safety at Work etc. Act 1974 (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Guidance	Workplace Exposure Limits EH40.
Restrictions (Annex XVII Regulation 1907/2006)	No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

SECTION 16: Other information

General information	Only trained personnel should use this material.
Revision date	24/04/2018
Revision	1
SDS number	6673
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.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.