

# Safety data sheet

according to 1907/2006/EC, Article 31

Trade name MICRO-ARMOUR Comp B.

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

### 1.1 Product identifier

Trade name MICRO-ARMOUR, Comp. B

Article number: 20205.02

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

No further relevant information available.

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Forcrete Ltd

6 Fitzmaurice Court Industrial Estate, Valley Side, Wymondham NR18 0NN

Tel: +441603455962

Mob: +447472483348

Information department:

Product Safety department: George Hunt Tel: +447472483348

E-Mail: sales@forcrete.co.uk

### 1.4 Emergency telephone number:

Tel: +447472483348

sales@forcrete.co.uk

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1 B                      H314 Causes severe skin burns and eye damage.

Eye Dam. 1                         H318 Causes serious eye damage.

Skin Sens. 1                        H317 May cause an allergic skin reaction.

Aquatic Chronic 2                 H411 Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

### Hazard pictograms



GHS05



GHS07



GHS09

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**Signal word** Danger

**Hazard-determining components of labelling:**

Addotto ammine resine epossidiche

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and tetraethylenepentamine

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

Alcohols, C12-15, branched and linear, ethoxylated

2,4,6-tris(dimethylaminomethyl)phenol

Tetraethylenepentamine, linear, cyclic and branched

Polietilenpoliammine, frazione trietilenetetrammina

3,6-diazaoctanethylenediamin

**Hazard statements**

H315 Causes skin irritation

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects

**Precautionary statements**

P260 Do not breathe vapours

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and 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.

P501 Dispose of contents/container in accordance with local/regional/national/ international regulations.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

**3.2 Chemical characterisation:**

**Mixtures Description: Mixture consisting of the following components**

Dangerous components [% w/w]:		
	Addotto ammine resine epossidiche Eye Dam. 1, H318; Skin Irrit. 2, H315	10-19.9%
CAS: 90-72-2 EINECS: 202-013-9 Reg.nr.: 01-2119560597-27	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and tetraethylenepentamine	2.5-4.9%

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	Eye Dam. 1, H318; Aquatic Chronic 2, H411; Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1B, H317	
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**Additional information** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Immediately remove any clothing soiled by the product.

**After inhalation** In case of unconsciousness bring patient into stable side position for transport.

**After skin contact** Wash immediately with water and soap and rinse thoroughly.

**After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

**After swallowing** Drink copious amounts of water and provide fresh air. Instantly call for doctor

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

No further relevant information available.

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

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Use fire fighting measures that suit the environment.

### 5.2 Special hazards arising from the substance or mixture

Formation of poisonous gases during heating or in fires

### 5.3 Advice for firefighters

**Protective equipment:** Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear self-contained breathing apparatus.

Wear protective equipment. Keep unprotected persons away.

### 6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Do not allow product to reach sewage system or water bodies.

Inform responsible authorities in case product reaches bodies of water or sewage system.

### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation

### 6.4 Reference to other sections

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See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use only in well ventilated areas.

**Information about protection against explosions and fires:** Keep breathing equipment ready

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

**Requirements to be met by storerooms and containers:** Prevent any penetration into the ground.

**Information on storage in a common storage facility:** Not required

#### Further information about storage conditions:

Store container in a well ventilated position.

Protect from frost.

Keep container tightly closed.

### 7.3 Specific end use(s) No further relevant information available.

## SECTION 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see item 7.

### 8.1 Control parameters

#### Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during compilation were used as a basis.

### 8.2 Exposure controls

#### Personal protective equipment

##### General protective and hygienic measures

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

Keep away from food, beverages and animal feed.

Immediately remove soiled, saturated clothing.

Wash hands before pauses and after work.

Avoid contact with eyes and skin.

The following indication regarding the personal protective equipment are to be considered as suggestions. The selection of the necessary personal protective equipment is to be evaluated by the employer depending on the types of operations and the local circumstances. If a risk assessment onsite shows that there is no risk for employees, the personal protective equipment is not required or the amount of the PPE can be adapted accordingly.

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**Respiratory equipment:** Not required

**Protection of hands:**

Long cuffed gloves

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed safety glasses.

**Body protection:** Protective work clothing

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b> <b>General Information</b>
<b>Appearance:</b> Form: Pasty Colour: White Odour: Amine-like Odour threshold: Not determined.
pH-value: Not determined.
Change in condition Melting point/freezing point: Not determined Initial boiling point and boiling range: >250 °C
Flash point: 148 °C
Inflammability (solid, gaseous) Not applicable.
Ignition temperature: not applicable
Decomposition temperature: Not determined.
Self-inflammability: Product is not self-igniting.
Explosive properties: Product is not explosive.

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Explosive Limits: Lower: Not determined. Upper: Not determined.
Vapour pressure: Not determined.
Density at 20 °C: 1.6 g/cm <sup>3</sup> Relative density Not determined. Vapour density Not determined. Evaporation rate Not determined.
Solubility in / Miscibility with Water: Soluble
Distribution coefficient (n-octanol/water): Not determined.
Viscosity Dynamic: Not determined. kinematic: Not determined.
Organic Solvent 0.0%
9.2 Other information No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

No decomposition if handled and stored according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** No dangerous decomposition products known

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects Acute toxicity:** Based on available data, the classification criteria are not met.

### LD/LC50 values that are relevant for classification:

#### ATE (Acute Toxicity Estimates)

Oral LD50 9,085 mg/kg

Dermal LD50 7,758 mg/kg

Inhalative LC50/4 h >253 mg/l (mouse)

#### 68131-73-7 polyethylenepolyamines

Oral LD50 1,716.2 mg/kg

Dermal LD50 1,465.4 mg/kg

#### 90-72-2 2, 4, 6-tris(dimethylaminomethyl)phenol

Oral LD50 2,169 mg/kg (mouse)

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**Skin corrosion/irritation:**

Causes skin irritation.

**Serious eye damage/irritation:**

Causes serious eye irritation.

**Sensitisation:**

May cause an allergic skin reaction.

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** Based on available data, the classification criteria are not met.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT-single exposure:** Based on available data, the classification criteria are not met.

**STOT-repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

**Ecotoxic** Toxic for fish

**General notes:**

Do not allow product to reach ground water, bodies of water or sewage system.

Hazardous to drinking water even if small quantities leak into soil.

Also poisonous for fish and plankton in bodies of water.

Toxic for aquatic organisms

#### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

#### Recommendation

Not hardened material must be disposed of as hazardous waste according to official regulations.

Hardened product remains may be disposed of as building rubble or put into household garbage.

#### European Waste Catalogue

**HP8 Corrosive**





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**HP13 Sensitising**  
**HP14 Ecotoxic**

**Uncleaned packaging:**

Recommendation: Disposal must be made according to official regulations.

**SECTION 14: Transport information**

<p>14.1 UN-Number ADR, IMDG, IATA UN2735</p> <p>14.2 UN proper shipping name ADR</p> <p>IMDG</p> <p>IATA</p>	<p>UN2735</p> <p>UN2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines), ENVIRONMENTALLY HAZARDOUS</p> <p>AMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines), MARINE POLLUTANT</p> <p>POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines)</p>
<p>14.3 Transport hazard class(es) ADR</p>   <p>Class</p> <p>Label</p> <p>IMDG, IATA</p>   <p>Class</p> <p>Label</p>	<p>8 Corrosive substances. 8</p> <p>8 Corrosive substances. 8</p>
<p>14.4 Packing group ADR, IMDG, IATA</p>	<p>III</p>
<p>14.5 Environmental hazards:</p>	<p>Product contains environmentally hazardous substances: polyethylenepolyamines</p>
<p>Marine pollutant:</p> <p>Special marking (ADR):</p>	<p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<p>14.6 Special precautions for user hazard identification number: EMS Number:</p>	<p>Warning: Corrosive substances</p> <p>80</p> <p>F-A,S-B</p>



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Segregation groups Stowage Category Segregation code	Alkalis A SG35 Stow "separated from" SGG1 acids
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
Transport/Additional information: ADR Limited quantities (LQ) Excepted quantities (EQ) Maximum net quantity per inner packaging: Maximum net quantity per outer packaging: Transport category Tunnel restriction code	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN2735 AMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines), 8, III, Environmentally hazardous

## SECTION 15: Regulatory information

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

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** None of the ingredients is listed.

**Seveso category** E2 Hazardous to the Aquatic Environment

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

Delivery specifications are found in the respective Technical Information Sheets.

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

### Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects.

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**Classification according to Regulation (EC) No 1272/2008** Calculation method

**Department issuing data specification sheet:** Product Safety department / EHS

### **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2