



SAFETY DATA SHEET NITOCOTE EN901 HARDENER

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

1.1. Product identifier

Product name NITOCOTE EN901 HARDENER

Product number 1748064AE1

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

1.3. Details of the supplier of the safety data sheet

Supplier Al Gurg Fosroc LLC
PO Box 657
Dubai
United Arab Emirates
+ 971 4 2858606

1.4. Emergency telephone number

Emergency telephone +97142039699 (08:00 to 16:30) // +971506258232 (16:30 to 08:00)GMT+4

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 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT RE 2 - H373

Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements H302+H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements P233 Keep container tightly closed.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P304+P312 IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.
P402+P404 Store in a dry place. Store in a closed container.
P501 Dispose of contents/ container in accordance with national regulations.

Contains BENZYL ALCOHOL, HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER

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2.3. Other hazards

No other information available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
|---|--|
| BENZYL ALCOHOL | 30-60% |
| CAS number: 100-51-6 | EC number: 202-859-9 |
| | REACH registration number: 01-2119492630-38-xxxx |
| Classification | |
| Acute Tox. 4 - H302 | |
| Acute Tox. 4 - H332 | |
| Eye Irrit. 2 - H319 | |
| HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER | 30-60% |
| CAS number: 135108-88-2 | REACH registration number: 01-2119983522-33-0000 |
| Classification | |
| Acute Tox. 4 - H302 | |
| Skin Corr. 1B - H314 | |
| Eye Dam. 1 - H318 | |
| Skin Sens. 1 - H317 | |
| STOT RE 2 - H373 | |
| Aquatic Chronic 3 - H412 | |
| 4,4'-METHYLENEBISCYCLOHEXYLAMINE | 1-5% |
| CAS number: 1761-71-3 | REACH registration number: 01-2119541673-38-0000 |
| Classification | |
| Acute Tox. 4 - H302 | |
| Skin Corr. 1A - H314 | |
| Eye Dam. 1 - H318 | |
| Skin Sens. 1 - H317 | |
| STOT RE 2 - H373 | |
| Aquatic Chronic 2 - H411 | |
| 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL | 1-5% |
| CAS number: 90-72-2 | EC number: 202-013-9 |
| | REACH registration number: 01-2119560597-27-XXXX |
| Classification | |
| Acute Tox. 4 - H302 | |
| Skin Irrit. 2 - H315 | |
| Eye Irrit. 2 - H319 | |

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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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. Never give anything by mouth to an unconscious person. Do not induce vomiting. Keep affected person warm and at rest. Get medical attention immediately. |
| Ingestion | Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately. |
| Skin contact | Remove affected person from source of contamination. Rinse immediately with plenty of water. Get medical attention promptly if symptoms occur after washing. |
| 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

| | |
|---------------------|----------------------------|
| Skin contact | This product is corrosive. |
| Eye contact | Causes serious eye damage. |

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

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|-----------------------------|--|
| Notes for the doctor | Symptom treatment. Depending on the patient's situation and the specific circumstances of the accident, the treatment may be different. In all potential cases of poisoning, on-site emergency treatment is essential. |
|-----------------------------|--|

SECTION 5: Firefighting measures

5.1. Extinguishing media

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|-------------------------------------|---|
| Suitable extinguishing media | Use fire-extinguishing media suitable for the surrounding fire. |
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5.2. Special hazards arising from the substance or mixture

| | |
|-------------------------|---|
| Specific hazards | No unusual fire or explosion hazards noted. |
|-------------------------|---|

5.3. Advice for firefighters

| | |
|---|---|
| Protective actions during firefighting | Do not inhale explosion and/or combustion gases. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters. |
|---|---|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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|-----------------------------|---|
| Personal precautions | Keep unauthorized persons away. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Provide appropriate protective equipment and ventilation equipment. |
|-----------------------------|---|

6.2. Environmental precautions

| | |
|----------------------------------|--|
| Environmental precautions | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. |
|----------------------------------|--|

6.3. Methods and material for containment and cleaning up

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|--------------------------------|--|
| Methods for cleaning up | Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Avoid contamination of ponds or watercourses with washing down water. |
|--------------------------------|--|

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6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid breathing vapours. Ensure adequate ventilation. Maintain good standards of personal hygiene. Avoid skin and eye contact. Do not eat, drink or smoke whilst using this product.

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.

Storage class Corrosive storage.

7.3. Specific end use(s)

Specific end use(s) Hardener component of two part high build epoxy novolac coating

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

BENZYL ALCOHOL (CAS: 100-51-6)

| | |
|-------------|--|
| DNEL | Workers - Inhalation; Short term systemic effects: 110 mg/m ³ Workers - Inhalation; Long term systemic effects: 22 mg/m ³ Workers - Dermal; Short term systemic effects: 40 mg/kg bw/day Workers - Dermal; Long term systemic effects: 8 mg/kg bw/day |
| PNEC | - Fresh water; 1 mg/l - marine water; 0.1 mg/l - STP; 39 mg/l |

4,4'-METHYLENEBIS(CYCLOHEXYLAMINE) (CAS: 1761-71-3)

| | |
|-------------|--|
| DNEL | Industry - Dermal; Long term systemic effects: 0.1 mg/kg/day Industry - Inhalation; Long term systemic effects: 1 mg/m ³ |
| PNEC | - Soil; 0.072 mg/kg - Sediment (Marinewater); 0.039 mg/kg - Sediment (Freshwater); 0.39 mg/kg - STP; 80 mg/l - marine water; 0.8 µg/l - Fresh water; 8 µg/l |

Bis(dimethylaminomethyl)phenol (CAS: 71074-89-0)

| | |
|-------------|--|
| PNEC | - Fresh water; 0.084 mg/l - marine water; 0.0084 mg/l |
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8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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| | |
|---------------------------------------|--|
| Eye/face protection | Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. |
| Hand protection | Wear protective gloves made of the following material: Nitrile rubber. Viton rubber (fluoro rubber). Polyvinylidene chloride/polyethylene (PVDC/PE). |
| Other skin and body protection | Wear appropriate clothing to prevent skin contamination. Provide eyewash station. |
| Hygiene measures | Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated. |
| Respiratory protection | No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--------------------------------------|
| Appearance | Liquid. |
| Colour | Amber. |
| Odour | Amine. |
| Odour threshold | No information available. |
| pH | No information available. |
| Melting point | Not available. |
| Initial boiling point and range | No specific test data are available. |
| Flash point | No information available. |
| Evaporation rate | No information available. |
| Evaporation factor | No specific test data are available. |
| Flammability (solid, gas) | No information available. |
| Upper/lower flammability or explosive limits | No information available. |
| Other flammability | No specific test data are available. |
| Vapour pressure | No specific test data are available. |
| Vapour density | No information available. |
| Relative density | 0.965 @ 25 deg C @ °C |
| Bulk density | Not available. |
| Solubility(ies) | Slightly soluble in water. |
| Partition coefficient | No specific test data are available. |
| Auto-ignition temperature | No information available. |
| Decomposition Temperature | No specific test data are available. |
| Viscosity | 1P-3P @ 25 C |
| Explosive properties | No information available. |

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Explosive under the influence of a flame Not considered to be explosive.

Oxidising properties Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information No additional information.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable at normal temperatures and pressure.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid The following materials may react violently with the product: Strong oxidising agents.

10.5. Incompatible materials

Materials to avoid Oxidant, strong acid and alkali.

10.6. Hazardous decomposition products

Hazardous decomposition products Ammonia or amines.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 504.2

Acute toxicity - dermal

ATE dermal (mg/kg) 1,569.56

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 8.64

Inhalation May cause respiratory system irritation. May cause sensitisation by inhalation. May cause respiratory allergy.

Ingestion Causes burns. May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Skin contact May cause allergic contact eczema. Product has a defatting effect on skin. May cause allergic contact eczema. May cause sensitisation by skin contact. Causes burns. Harmful in contact with skin.

Eye contact Severe irritation, burning and tearing. Causes burns.

Toxicological information on ingredients.

NITOCOTE EN901 HARDENER**BENZYL ALCOHOL****Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 1,620.0

Species Rat

ATE oral (mg/kg) 1,620.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 4.178

Species Rat

ATE inhalation (dusts/mists mg/l) 4.178

Skin sensitisation

Skin sensitisation Not sensitising.

Carcinogenicity

Carcinogenicity NOAEL 200 mg/kg/day, Oral, Mouse There is no evidence that the product can cause cancer.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 400 mg/kg, Oral, Rat

HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER**Acute toxicity - oral**

Notes (oral LD₅₀) LD₅₀ >1000 mg/kg, Oral, Rat

ATE oral (mg/kg) 1,000.0

Acute toxicity - dermal

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

ATE dermal (mg/kg) 2,001.0

4,4'-METHYLENEBISCYCLOHEXYLAMINE**Acute toxicity - oral**

Notes (oral LD₅₀) LD₅₀ 625 mg/kg, Oral, Rat

ATE oral (mg/kg) 625.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 2110 mg/kg, Dermal, Rabbit

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ATE dermal (mg/kg) 2,110.0

Skin corrosion/irritation

Skin corrosion/irritation Corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation Risk of serious damage to eyes.

Skin sensitisation

Skin sensitisation Sensitising.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs (Liver) through prolonged or repeated exposure if swallowed.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion Harmful if swallowed. May cause burns in mucous membranes, throat, oesophagus and stomach.

Skin contact Causes severe burns. May cause sensitisation by skin contact.

Eye contact Causes serious eye damage.

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL**Acute toxicity - oral**

ATE oral (mg/kg) 500.0

SECTION 12: Ecological information

Ecotoxicity Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.**4,4'-METHYLENEBISCYCLOHEXYLAMINE**

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity**Ecological information on ingredients.****BENZYL ALCOHOL****Acute aquatic toxicity**Acute toxicity - fish LC₅₀, 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow)Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 230 mg/l, Daphnia magnaAcute toxicity - aquatic plants EC₅₀, 72 hours: 770 mg/l, Pseudokirchneriella subcapitata**HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER**

NITOCOTE EN901 HARDENER**Acute aquatic toxicity****Acute toxicity - fish** LC₅₀, 96 hour: 63 mg/l, Poecilia reticulata (Guppy)**Acute toxicity - aquatic invertebrates** EC₅₀, 48 hour: 15.4 mg/l, Daphnia magna**Acute toxicity - aquatic plants** EC₅₀, 72 hour: 43.9 mg/l, Algae**Acute toxicity - microorganisms** EC₅₀, 3 hour: 187 mg/l, Activated sludge**4,4'-METHYLENEBISCYCLOHEXYLAMINE****Acute aquatic toxicity****Acute toxicity - fish** LC₅₀, 96 hours: 46 - 100 mg/l, Leuciscus idus (Golden orfe)**Acute toxicity - aquatic invertebrates** EC₅₀, 48 hours: 6.84 mg/l, Daphnia magna**Acute toxicity - aquatic plants** EC₅₀, 72 hours: 140 - 200 mg/l, Algae**2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL****Acute aquatic toxicity****Acute toxicity - fish** LC₅₀, 96 hours: 718 mg/l, Fish**12.2. Persistence and degradability****Ecological information on ingredients.****BENZYL ALCOHOL****Persistence and degradability**

The product is readily biodegradable.

4,4'-METHYLENEBISCYCLOHEXYLAMINE**Persistence and degradability**

The product is not readily biodegradable.

12.3. Bioaccumulative potential**Partition coefficient** No specific test data are available.**Ecological information on ingredients.****BENZYL ALCOHOL****Bioaccumulative potential** The product does not contain any substances expected to be bioaccumulating.**Partition coefficient** log Kow: 1.10**HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER****Bioaccumulative potential** The product is not bioaccumulating.**4,4'-METHYLENEBISCYCLOHEXYLAMINE**

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Bioaccumulative potential Bioaccumulation is unlikely.

12.4. Mobility in soil

Mobility Not available.

Ecological information on ingredients.

4,4'-METHYLENEBISCYCLOHEXYLAMINE

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Assessment not carried out but this product is believed not to be a PBT nor a vPvB.

Ecological information on ingredients.

4,4'-METHYLENEBISCYCLOHEXYLAMINE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects No further relevant information available.

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) | 1760 |
| UN No. (IMDG) | 1760 |
| UN No. (ICAO) | 1760 |
| UN No. (ADN) | 1760 |

14.2. UN proper shipping name

| | |
|---------------------------------------|--|
| Proper shipping name (ADR/RID) | CORROSIVE LIQUID, N.O.S. (CONTAINS HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER, 4,4'-METHYLENEBISCYCLOHEXYLAMINE) |
| Proper shipping name (IMDG) | CORROSIVE LIQUID, N.O.S. (CONTAINS HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER, 4,4'-METHYLENEBISCYCLOHEXYLAMINE) |
| Proper shipping name (ICAO) | CORROSIVE LIQUID, N.O.S. (CONTAINS HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER, 4,4'-METHYLENEBISCYCLOHEXYLAMINE) |
| Proper shipping name (ADN) | CORROSIVE LIQUID, N.O.S. (CONTAINS HYDROGENATED FORMALDEHYDE-BENZENEAMINE POLYMER, 4,4'-METHYLENEBISCYCLOHEXYLAMINE) |

14.3. Transport hazard class(es)

| | |
|------------------------------------|----|
| ADR/RID class | 8 |
| ADR/RID classification code | C9 |

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| | |
|---------------------|---|
| ADR/RID label | 8 |
| IMDG class | 8 |
| ICAO class/division | 8 |
| ADN class | 8 |

Transport labels



14.4. Packing group

| | |
|-----------------------|----|
| ADR/RID packing group | II |
| IMDG packing group | II |
| ICAO packing group | II |
| ADN packing group | II |

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

| | |
|--|----------|
| EmS | F-A, S-B |
| ADR transport category | 2 |
| Hazard Identification Number (ADR/RID) | 80 |
| 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.

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). Control of Substances Hazardous to Health Regulations 2002 (as amended). |
| Guidance | Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG228. 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

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| | |
|----------------------------------|---|
| General information | The user must be instructed in the proper work procedure and be familiar with the contents of these instructions. |
| Revision comments | NOTE: Lines within the margin indicate significant changes from the previous revision. |
| Revision date | 23/10/2016 |
| Revision | 2a |
| Supersedes date | 27/02/2013 |
| SDS number | 11156 |
| Hazard statements in full | H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. |

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.