



SAFETY DATA SHEET

NITOMORTAR FCB HARDENER

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

1.1. Product identifier

Product name NITOMORTAR FCB HARDENER

Product number A1915003AE1

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

Identified uses Hardener component of two part epoxy system

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 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Carc. 1B - H350 Repr. 1B - H360

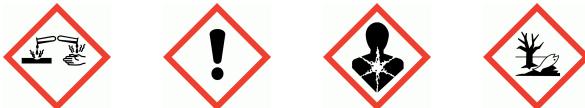
Environmental hazards Aquatic Chronic 2 - H411

Human health Contains a substance which may be potentially carcinogenic. Contains a substance/a group of substances which may damage fertility and the unborn child.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Pictogram



Signal word

Danger

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Hazard statements	H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H350 May cause cancer. H360 May damage fertility or the unborn child. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P260 Do not breathe vapour/ spray. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P501 Dispose of contents/ container in accordance with national regulations.
Contains	SILICA SAND < 250 micron, EPOXY RESIN DILUENT, ISOPHORONEDIAMINE, DIBUTYL PHTHALATE: DBP
Supplementary precautionary statements	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of water. 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. P314 Get medical advice/ attention if you feel unwell. P321 Specific treatment (see medical advice on this label). P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse. P391 Collect spillage. P405 Store locked up.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SILICA SAND < 250 micron	30-60%
CAS number: 14808-60-7	EC number: 238-878-4
Classification Eye Irrit. 2 - H319	Classification (67/548/EEC or 1999/45/EC) -
EPOXY RESIN DILUENT	5-10%
CAS number: 68512-30-1	EC number: 270-966-8
Classification Acute Tox. 4 - H302	

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ISOPHORONEDIAMINE	5-10%
CAS number: 2855-13-2	EC number: 220-666-8
REACH registration number: 01-2119514687-32-xxxx	
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
Aquatic Chronic 3 - H412	
DIBUTYL PHTHALATE: DBP	<1%
CAS number: 84-74-2	EC number: 201-557-4
M factor (Acute) = 10	M factor (Chronic) = 10
Classification	
Repr. 1B - H360	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	
4,4'-METHYLENEDIANILINE	<1%
CAS number: 101-77-9	EC number: 202-974-4
M factor (Acute) = 1	M factor (Chronic) = 10

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove affected person from source of contamination. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and 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. Get medical attention immediately. Continue to rinse.

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

General information	No additional symptoms and effects are anticipated.
Inhalation	Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Corrosive to the respiratory tract.
Ingestion	May cause discomfort if swallowed.
Skin contact	Causes severe burns.
Eye contact	Causes serious eye damage.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

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

Hazardous combustion products Fire creates: Carbon dioxide (CO₂). Carbon monoxide (CO). Black smoke

5.3. Advice for firefighters

Protective actions during firefighting Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Do not get water directly on material. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Avoid the spillage or runoff entering drains, sewers or watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

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 Avoid or minimise the creation of any environmental contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Do not touch or walk into spilled material. 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.

6.4. Reference to other sections

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

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 Corrosive storage.

7.3. Specific end use(s)

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

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SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

SILICA SAND < 250 micron

Long-term exposure limit (8-hour TWA): WEL 0,1 mg/m³ Respirable crystalline silica

DIBUTYL PHTHALATE: DBP

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

Short-term exposure limit (15-minute): WEL 10 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments

WEL = Workplace Exposure Limits

EPOXY RESIN DILUENT (CAS: 68512-30-1)

DNEL Workers - Dermal; Long term : 16.4 mg/kg bw/day
Workers - Inhalation; Long term : 57 mg/m³

PNEC - Fresh water; 14 µg/l
- Marine water; 1.4 µg/l
- Intermittent release; 140 µg/l
- STP; 2.4 mg/l
- Sediment; 52.9 mg/kg
- Soil; 10.5 mg/kg dw

ISOPHORONEDIAMINE (CAS: 2855-13-2)

PNEC - Marine water; 0.006 mg/l
- Fresh water; 0.06 mg/l
- Soil; 1.121 mg/kg

DIBUTYL PHTHALATE: DBP (CAS: 84-74-2)

DNEL Workers - Inhalation; Long term systemic effects: 0.13 mg/m³
Workers - Dermal; Long term systemic effects: 0.19 mg/kg bw/day

PNEC - Fresh water; 10 µg/l
- Marine water; 1 µg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

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 or face shield.

Hand protection

Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Neoprene.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

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Hygiene measures	Provide eyewash station and safety shower. 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. Wash promptly with soap and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	Use an approved air purifying respirator with replaceable filter cartage comply with EN 140 and filter EN 141: Organic Vapour cartridge type A1
Environmental exposure controls	Avoid release to the environment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Black.
Odour	Sharp Amine.
Odour threshold	No information available.
pH	Not determined.
Melting point	Not applicable.
Initial boiling point and range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.8-1.9 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Partially miscible in water
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not determined.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Explosive under the influence of a flame	Not considered to be explosive.

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Oxidising properties There are no chemical groups present in the product that are associated with oxidising properties.

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No dangerous reactions known if used as directed.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid Epoxides. Strong acid. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 3,240.2

Acute toxicity - dermal

ATE dermal (mg/kg) 16,034.99

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 101.55

Inhalation Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: Corrosive to the respiratory tract.

Ingestion May cause discomfort if swallowed.

Skin contact Causes severe burns. May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

Acute and chronic health hazards Known or suspected carcinogen for humans.

Route of entry Ingestion. Skin and/or eye contact

Target organs Eyes Skin

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EPOXY RESIN DILUENT

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 1,600.0 mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 10.0 mg/kg)

Species Rat

ISOPHORONEDIAMINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 1,030.0 mg/kg)

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 1,840.0 mg/kg)

Species Rabbit

ATE dermal (mg/kg) 1,100.0

Inhalation May cause respiratory system irritation.

Ingestion Harmful if swallowed.

Skin contact Harmful in contact with skin. May cause allergic contact eczema. Causes burns.

Eye contact Causes burns.

DIBUTYL PHTHALATE: DBP

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 8,000.0 mg/kg)

Species Rat

ATE oral (mg/kg) 8,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 20,860.0 mg/kg)

Species Rabbit

ATE dermal (mg/kg) 20,860.0

Acute toxicity - inhalation

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Notes (inhalation LC₅₀) LC50 25 mg/l, Inhalation, Mouse

Acute and chronic health hazards INGESTION. May cause stomach pain or vomiting. Inhalation May cause respiratory system irritation. SKIN CONTACT. May cause skin irritation/eczema. May cause sensitisation by skin contact. EYE CONTACT. Irritating to eyes.

4,4'-METHYLENEDIANILINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 260.0

Species Guinea pig

ATE oral (mg/kg) 260.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,080.0

Species Rat

ATE dermal (mg/kg) 2,080.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 0.46

Species Rat

ATE inhalation (dusts/mists mg/l) 0.46

SECTION 12: Ecological Information

Ecotoxicity Toxic to aquatic life with long lasting effects.

12.1. Toxicity

Toxicity May cause long-term adverse effects in the aquatic environment.

ISOPHORONEDIAMINE

Acute toxicity - fish LC₅₀, 96 hours: 110 mg/l, Algae

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 23 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 50 mg/l, Fish

DIBUTYL PHTHALATE: DBP

Acute aquatic toxicity

LE(C)₅₀ 0.01 < L(E)C50 ≤ 0.1

M factor (Acute) 10

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Acute toxicity - fish	LC ₅₀ , 96 hours: 0.85 mg/l, Pimephales promelas (Fat-head Minnow) LC ₅₀ , 96 hours: 1.6 mg/l, Salmo gairdneri
Acute toxicity - aquatic invertebrates	LC ₅₀ , 48 hours: 3.7 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 96 hours: 0.75 mg/l, Selenastrum capricornutum
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	10

4,4'-METHYLENEDIANILINE

<u>Acute aquatic toxicity</u>	
LE(C)₅₀	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC ₅₀ , 96 hours: 20.6 mg/l, Oryzias latipes (Red killifish)
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	10

12.2. Persistence and degradability

Persistence and degradability Not expected to be readily biodegradable.

ISOPHORONEDIAMINE

Persistence and degradability	The product is not readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential Not expected to be bioaccumulative.

Partition coefficient Not available.

ISOPHORONEDIAMINE

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

Partition coefficient log Kow: 0.99

12.4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

ISOPHORONEDIAMINE

Mobility The product is soluble in water.

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.

ISOPHORONEDIAMINE

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

12.6. Other adverse effects

Other adverse effects Not 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 ISOPHORONEDIAMINE, DIBUTYL PHTHALATE: DBP)
Proper shipping name (IMDG)	CORROSIVE LIQUID, N.O.S. (CONTAINS ISOPHORONEDIAMINE, DIBUTYL PHTHALATE: DBP)
Proper shipping name (ICAO)	CORROSIVE LIQUID, N.O.S. (CONTAINS ISOPHORONEDIAMINE, DIBUTYL PHTHALATE: DBP)
Proper shipping name (ADN)	CORROSIVE LIQUID, N.O.S. (CONTAINS ISOPHORONEDIAMINE, DIBUTYL PHTHALATE: DBP)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C9
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
ADN packing group	II

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ICAO packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-B

ADR transport category 2

Emergency Action Code 2X

Hazard Identification Number 80
(ADR/RID)

Tunnel restriction code (E)

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

EU legislation 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.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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 11/07/2017

Revision 4

NITOMORTAR FCB HARDENER

Hazard statements in full	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. H319 Causes serious eye irritation. H350 May cause cancer. H360 May damage fertility or the unborn child. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
Supersedes date	27/10/2015
SDS number	11230

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.