



SAFETY DATA SHEET NITOFLOR FC150 BASE

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

1.1. Product identifier

Product name NITOFLOR FC150 BASE

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

Identified uses İki parçalı, epoksi harç sisteminin temel bileşeni

1.3. Details of the supplier of the safety data sheet

Supplier Fosroc Idea Yapı Kimyasalları San. Ve Tic. A.S.
Aydınevler mah. Sanayi cad. Demirtas Plaza No:13 Kat:3 34854
Maltepe İSTANBUL
TURKEY
+90 216 463 6776
enquiryturkey@fosroc.com

1.4. Emergency telephone number

Emergency telephone +90 262 728 15 05

National emergency telephone number 114

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT RE 2 - H373

Environmental hazards Aquatic Chronic 2 - H411

Human health See Section 11 for additional information on health hazards.

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

Hazard pictograms



Signal word

Warning

Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements	<p>P260 Do not breathe vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	SILICA FLOUR (4-50 Micron), EPOXY RESIN (Type A) (Number average MW <= 700), Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Supplementary precautionary statements	<p>P261 Avoid breathing vapour/ spray.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</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>P314 Get medical advice/ attention if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p>

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 FLOUR (4-50 Micron)	30-60%
CAS number: 14808-60-7	
Classification STOT RE 2 - H373	
EPOXY RESIN (Type A) (Number average MW <= 700)	30-60%
CAS number: 25068-38-6	EC number: 500-033-5
	REACH registration number: 01-2119456619-26-XXXX
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	1-5%
CAS number: 9003-36-5	
Classification Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

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BENZYL ALCOHOL		1-5%
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
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OXIRANE, MONO [(C12-14- ALKYL OXY)METHYL] DERIVS	1-5%
CAS number: 68609-97-2	

Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

The Full Text for all R-Phrases and Hazard Statements are 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.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing and rinse skin thoroughly with water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. If person becomes uncomfortable seek hospital and bring these instructions.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Low volatility makes inhalation unlikely at ambient temperature.
Ingestion	May cause irritation of mouth, throat and digestive tract.
Skin contact	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.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

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 Not known.

Hazardous combustion products Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3. Advice for firefighters

Protective actions during firefighting Fight fire with normal precautions from a reasonable distance. Avoid breathing fire gases or vapours. Containers close to fire should be removed or cooled with water. Avoid the spillage or runoff entering drains, sewers or watercourses.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and absorb spillage with sand, earth or other non-combustible material. Take care as floors and other surfaces may become slippery. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Good personal hygiene procedures should be implemented. 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.

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

SILICA FLOUR (4-50 Micron)

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ respirable dust

WEL = Workplace Exposure Limit

EPOXY RESIN (Type A) (Number average MW ≤ 700) (CAS: 25068-38-6)

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DNEL Workers - Inhalation; Short term systemic effects: 12.25 mg/m³
Workers - Inhalation; Long term systemic effects: 12.25 mg/m³

PNEC - Fresh water; 0.006 mg/l

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (CAS: 9003-36-5)

DNEL Workers - Inhalation; Long term systemic effects: 29.39 mg/m³
Workers - Dermal; Long term systemic effects: 104.15 mg/kg/day
Workers - Dermal; Short term local effects: 8.3 µg/cm²

PNEC - Fresh water; 0.003 mg/l
- marine water; 0.0003 mg/l
- STP; 10 mg/l

BENZYL ALCOHOL (CAS: 100-51-6)

DNEL Workers - Inhalation; Short term systemic effects: 110 mg/m³
Workers - Inhalation; Long term systemic effects: 22 mg/m³
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

OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS (CAS: 68609-97-2)

DNEL Workers - Inhalation; Long term systemic effects: 3.6 mg/m³
Workers - Dermal; Long term systemic effects: 1 mg/kg bw/day

PNEC - Fresh water; 0.0072 mg/l
- marine water; 0.00072 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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: Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

Hygiene measures

When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated.

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Respiratory protection Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Gas filter, type AX.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Yellowish.
Odour	Almost odourless.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not applicable.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	g/cm ³ 1.70 - 1.80 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	1500 P @ 23°C
Explosive properties	Not considered to be explosive.
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 Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 50,625.0

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 130.56

General information Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.

Inhalation Low volatility makes inhalation unlikely at ambient temperature.

Ingestion May cause irritation of mouth, throat and digestive tract.

Skin contact May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Acute and chronic health hazards May cause damage to organs through prolonged or repeated exposure.

Route of exposure Skin and/or eye contact Inhalation Ingestion

Target organs Skin Eyes

Toxicological information on ingredients.

SILICA FLOUR (4-50 Micron)

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

EPOXY RESIN (Type A) (Number average MW <= 700)

Acute toxicity - oral

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Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
Notes (oral LD₅₀)	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	5,000.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	20,000.0
Species	Rabbit
ATE dermal (mg/kg)	20,000.0
<u>Skin corrosion/irritation</u>	
Animal data	Rabbit Moderately irritating.
<u>Skin sensitisation</u>	
Skin sensitisation	May cause sensitisation by skin contact.

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	LD ₅₀ >5000 mg/kg, Oral, Rat

BENZYL ALCOHOL

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	1,620.0
Species	Rat
ATE oral (mg/kg)	1,620.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	2,000.0
Species	Rabbit
ATE dermal (mg/kg)	2,001.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	4.178
Species	Rat
ATE inhalation (dusts/mists mg/l)	4.178
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Carcinogenicity</u>	

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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

OXIRANE, MONO [(C12-14- ALKYL)OXY]METHYL] DERIVS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 19,200.0

Species Rat

ATE oral (mg/kg) 19,200.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 4,500.0

Species Rat

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

ATE dermal (mg/kg) 4,500.0

SECTION 12: Ecological information

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

12.1. Toxicity

Toxicity The product contains a substance which is harmful to aquatic organisms.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 3.6 mg/l, Leuciscus idus (Golden orfe)
LC₅₀, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 11 mg/l, Scenedesmus capricornutum (fresh water algae)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >1000 mg/l, Daphnia magna

BENZYL ALCOHOL

Acute aquatic toxicity

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Acute toxicity - fish	LC ₅₀ , 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 230 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 770 mg/l, Pseudokirchneriella subcapitata

OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 1 - 10 mg/l, Fish LC ₅₀ , 96 hours: 1800 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 1 - 10 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 844 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Persistence and degradability The product is not readily biodegradable.

BENZYL ALCOHOL

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.
Partition coefficient Not applicable.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

Partition coefficient log Pow: 3.242

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Partition coefficient : log Pow = Approximately 3.8 at 25 C

BENZYL ALCOHOL

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

Partition coefficient log Kow: 1.10

12.4. Mobility in soil

Mobility The product is insoluble in water.

Ecological information on ingredients.

NITOFLOR FC150 BASE

EPOXY RESIN (Type A) (Number average MW <= 700)

Mobility The product has poor water-solubility.

Adsorption/desorption coefficient Water - Koc: 445 @ °C

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.

Ecological information on ingredients.

EPOXY RESIN (Type A) (Number average MW <= 700)

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

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

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. (CONTAINS EPOXY RESIN (Type A) (Number average MW <= 700), EPOXY RESIN (Type F) (Number average MW <= 700))

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

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

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

14.3. Transport hazard class(es)

ADR/RID class 9

NITOFLOR FC150 BASE

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

National regulations	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.
EU legislation	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).

NITOFLOR FC150 BASE

Guidance Workplace Exposure Limits EH40.
Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

General information Only trained personnel should use this material.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 11/04/2019

Revision 2

Supersedes date 16/10/2018

SDS number 26886

Hazard statements in full H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled.
H411 Toxic 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.



SAFETY DATA SHEET NITOFLOR FC150 HARDENER

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

1.1. Product identifier

Product name NITOFLOR FC150 HARDENER

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

Identified uses İki parçalı, epoksi bağlama sisteminin sertleştirici bileşeni

1.3. Details of the supplier of the safety data sheet

Supplier Fosroc Idea Yapi Kimyasallari San. Ve Tic. A.S.
Aydinevler mah. Sanayi cad. Demirtas Plaza No:13 Kat:3 34854
Maltepe ISTANBUL
TURKEY
+90 216 463 6776
enquiryturkey@fosroc.com

1.4. Emergency telephone number

Emergency telephone +90 262 728 15 05

National emergency telephone number 114

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. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341

Environmental hazards Aquatic Chronic 3 - H412

Human health See Section 11 for additional information on health hazards.

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

2.2. Label elements

Hazard pictograms



Signal word

Danger

NITOFLOR FC150 HARDENER

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. H341 Suspected of causing genetic defects. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P260 Do not breathe vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P310 Immediately call a POISON CENTER/ doctor. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
Contains	ISOPHORONEDIAMINE, BENZYL ALCOHOL, FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH PHENOL AND m-PHENYLENEBIS(METHYLAMINE)
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. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302+P352 IF ON SKIN: Wash with plenty of water. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. 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. 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.

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

ISOPHORONEDIAMINE		10 - 25%
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

NITOFLOR FC150 HARDENER

BENZYL ALCOHOL 25 - 50%		
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		
FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH PHENOL AND m-PHENYLENEBIS(METHYLAMINE) 5-10%		
CAS number: 57214-10-5	EC number: 500-137-0	REACH registration number: 01-2119966906-20-XXXX
Classification Skin Corr. 1C - H314 Eye Dam. 1 - H318 Skin Sens. 1B - H317 Aquatic Chronic 3 - H412		
1,3-BIS(AMINOMETHYL)BENZENE (MXDA) 5-10%		
CAS number: 1477-55-0	REACH registration number: 01-2119480150-50-xxxx	
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412		
PHENOL 1-5%		
CAS number: 108-95-2	EC number: 203-632-7	REACH registration number: 01-2119471329-32
Classification Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Muta. 2 - H341 STOT RE 2 - H373		

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

SECTION 4: First aid measures**4.1. Description of first aid measures**

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General information	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Keep affected person under observation. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing and rinse skin thoroughly with water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. If person becomes uncomfortable seek hospital and bring these instructions.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Low volatility makes inhalation unlikely at ambient temperature.
Ingestion	Harmful if swallowed.
Skin contact	Harmful in contact with skin.
Eye contact	Causes severe skin burns and eye damage.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
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	Not known.
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrous gases (NO _x).

5.3. Advice for firefighters

Protective actions during firefighting	Fight fire with normal precautions from a reasonable distance. Avoid breathing fire gases or vapours. Containers close to fire should be removed or cooled with water. Avoid the spillage or runoff entering drains, sewers or watercourses.
Special protective equipment for firefighters	Wear chemical protective suit. Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8.
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6.2. Environmental precautions

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Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and absorb spillage with sand, earth or other non-combustible material. Take care as floors and other surfaces may become slippery. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Good personal hygiene procedures should be implemented. 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.

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.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

PHENOL

Long-term exposure limit (8-hour TWA): WEL 2 ppm 7.8 mg/m³

Short-term exposure limit (15-minute): WEL 4 ppm 16 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Ingredient comments No exposure limits known for ingredient(s).

ISOPHORONEDIAMINE (CAS: 2855-13-2)

PNEC

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

BENZYL ALCOHOL (CAS: 100-51-6)

DNEL

- Workers - Inhalation; Short term systemic effects: 110 mg/m³
- Workers - Inhalation; Long term systemic effects: 22 mg/m³
- 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

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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: Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Nitrile rubber. Viton rubber (fluoro rubber).

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

Hygiene measures

When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated.

Respiratory protection

Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Gas filter, type K.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellow.
Odour	Amine.
Odour threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
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 determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	g/cm ³ 1.00 @ 20°C

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Bulk density	Not applicable.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
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 Not available.

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 and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Acids. Alkalis. Oxidising materials.

10.4. Conditions to avoid

Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 658.34

Acute toxicity - dermal

ATE dermal (mg/kg) 1,896.55

Acute toxicity - inhalation

ATE inhalation (gases ppm) 23,333.33

ATE inhalation (vapours mg/l) 100.0

ATE inhalation (dusts/mists mg/l) 5.23

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General information	Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.
Inhalation	Low volatility makes inhalation unlikely at ambient temperature.
Ingestion	Harmful if swallowed.
Skin contact	Harmful in contact with skin.
Eye contact	Causes severe skin burns and eye damage.
Acute and chronic health hazards	Suspected of causing genetic defects.
Route of exposure	Skin and/or eye contact Inhalation Ingestion
Target organs	Skin Eyes Respiratory system, lungs

Toxicological information on ingredients.

ISOPHORONEDIAMINE

Acute toxicity - oral

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

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

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

Species Rabbit

ATE dermal (mg/kg) 1,100.0

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

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ATE inhalation (dusts/mists mg/l)	4.178
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Carcinogenicity</u>	
Carcinogenicity	NOAEL 200 mg/kg/day, Oral, Mouse There is no evidence that the product can cause cancer.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	NOAEL 400 mg/kg, Oral, Rat

1,3-BIS(AMINOMETHYL)BENZENE (MXDA)

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	930.0
Species	Rat
ATE oral (mg/kg)	930.0
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	3,100.0
Species	Rat
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ dust/mist mg/l)	1.34
Species	Rat
ATE inhalation (dusts/mists mg/l)	1.34
<u>Skin sensitisation</u>	
Skin sensitisation	Local Lymph Node Assay (LLNA) - Mouse: Sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation:: Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	NOAEL 150 mg/kg, Oral, Rat

PHENOL

<u>Acute toxicity - oral</u>	
ATE oral (mg/kg)	100.0
<u>Acute toxicity - dermal</u>	
ATE dermal (mg/kg)	300.0
<u>Carcinogenicity</u>	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

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SECTION 12: Ecological information

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

12.1. Toxicity

Toxicity The product contains a substance which is harmful to aquatic organisms.

Ecological information on ingredients.

ISOPHORONEDIAMINE

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 110 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 23 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 50 mg/l, Algae

BENZYL ALCOHOL

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 460 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 230 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 770 mg/l, Pseudokirchneriella subcapitata

1,3-BIS(AMINOMETHYL)BENZENE (MXDA)

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 87.6 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 15.2 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 20.3 mg/l, Freshwater algae
Acute toxicity - microorganisms	EC ₅₀ , 30 minutes: > 1000 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

ISOPHORONEDIAMINE

Persistence and degradability	The product is not readily biodegradable.
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BENZYL ALCOHOL

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Persistence and degradability The product is readily biodegradable.

1,3-BIS(AMINOMETHYL)BENZENE (MXDA)

Biodegradation - 49%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

ISOPHORONEDIAMINE

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

Partition coefficient log Kow: 0.99

BENZYL ALCOHOL

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

Partition coefficient log Kow: 1.10

1,3-BIS(AMINOMETHYL)BENZENE (MXDA)

Bioaccumulative potential BCF: < 0.3,

Partition coefficient log Pow: 0.18

12.4. Mobility in soil

Mobility The product is partly miscible with water and may spread in the aquatic environment.

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

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

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) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

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UN No. (ADN) 2735

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, 1,3-BIS(AMINOMETHYL)BENZENE (MXDA))

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, 1,3-BIS(AMINOMETHYL)BENZENE (MXDA))

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, 1,3-BIS(AMINOMETHYL)BENZENE (MXDA))

Proper shipping name (ADN) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS ISOPHORONEDIAMINE, 1,3-BIS(AMINOMETHYL)BENZENE (MXDA))

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C7

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

Transport labels



14.4. Packing group

ADR/RID packing group I

IMDG packing group I

ICAO packing group I

ADN packing group I

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

IMDG Code segregation group 18. Alkalis

EmS F-A, S-B

ADR transport category 1

Emergency Action Code 2X

Hazard Identification Number (ADR/RID) 88

Tunnel restriction code (E)

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

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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	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.
EU legislation	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. Approved Classification and Labelling Guide (Sixth edition) L131. Respiratory protective equipment at work (HSG53).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	DNEL: Derived No Effect Level. PNEC: Predicted No Effect Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
General information	Only trained personnel should use this material.
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	15/04/2019
Revision	2
Supersedes date	16/10/2018
SDS number	26885
Hazard statements in full	H301 Toxic if swallowed. H302 Harmful if swallowed. H311 Toxic in contact with skin. 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. H331 Toxic if inhaled. H332 Harmful if inhaled. H341 Suspected of causing genetic defects. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.

NITOFLOR FC150 HARDENER

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.