



SAFETY DATA SHEET NITOCOTE EPU HARDENER

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

1.1. Product identifier

Product name NITOCOTE EPU HARDENER

Product number A1761002AE1

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

Identified uses Hardener Component of Two-Part Solvent Based Epoxy Coating

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 Flam. Liq. 3 - H226

Health hazards Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361 STOT SE 3 - H336

Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) -

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

NITOCOTE EPU HARDENER

Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 IF ON SKIN: Wash with plenty of 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 national regulations.
Supplementary precautionary statements	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P260 Do not breathe vapour/ spray. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. 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. 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. P308+P313 IF exposed or concerned: Get medical advice/ attention. P310 Immediately call a POISON CENTER/ doctor. 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. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P391 Collect spillage. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. 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

O,O'-Bis(2-aminopropyl)polypropyleneglycol CAS number: 9046-10-0	10-30%
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412	

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1-METHOXY-2-PROPANOL			10-30%
CAS number: 107-98-2		EC number: 203-539-1	
Classification Flam. Liq. 3 - H226 STOT SE 3 - H336			
NONYLPHENOL			10-30%
CAS number: 84852-15-3		EC number: 284-325-5	
M factor (Acute) = 1		M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Repr. 2 - H361 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410			
TRIETHYLENETETRAMINE			10-30%
CAS number: 112-24-3		EC number: 203-950-6	
Classification Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412			
HYDROCARBONS, C9, aromatics			10-30%
CAS number: 64742-95-6		EC number: 918-668-5	REACH registration number: 01-2119455851-35-0000
Classification Flam. Liq. 3 - H226 STOT SE 3 - H335, H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411			

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ETHYLENEDIAMINE		<1%
CAS number: 107-15-3	EC number: 203-468-6	
Classification		
Flam. Liq. 3 - H226		
Acute Tox. 4 - H302		
Acute Tox. 4 - H312		
Skin Corr. 1B - H314		
Eye Dam. 1 - H318		
Resp. Sens. 1 - H334		
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

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

General information	See Section 11 for additional information on health hazards.
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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	Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	In case of fire, toxic gases may be formed.
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5.3. Advice for firefighters

Protective actions during firefighting	If possible, fight fire from protected position.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear appropriate protective Clothing and equipments.
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6.2. Environmental precautions

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Environmental precautions Toxic to aquatic life.

6.3. Methods and material for containment and cleaning up

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.

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 For personal protection, see Section 8.

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 Flammable liquid 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

1-METHOXY-2-PROPANOL

Sk

Long-term exposure limit (8-hour TWA): WEL 100 ppm 375 mg/m³

Short-term exposure limit (15-minute): WEL 150 ppm 560 mg/m³

HYDROCARBONS, C9, aromatics

Long-term exposure limit (8-hour TWA): WEL 100 mg/m³

ETHYLENEDIAMINE

Long-term exposure limit (8-hour TWA): WEL 10 ppm 25 mg/m³

Short-term exposure limit (15-minute): WEL

Sk = Can be absorbed through the skin.

WEL = Workplace Exposure Limit

O,O'-Bis(2-aminopropyl)polypropyleneglycol (CAS: 9046-10-0)

DNEL Industry/Professional, Workers - ; Long term systemic effects: 2.5 mg/kg bw/day

PNEC - Fresh water; 0.015 mg/l

1-METHOXY-2-PROPANOL (CAS: 107-98-2)

DNEL Industry - Inhalation; Short term local effects: 553.5 mg/m³
Industry - Dermal; Long term systemic effects: 50.6 mg/kg/day
Industry - Inhalation; Long term systemic effects: 369 mg/m³

PNEC - Fresh water; 10 mg/l
- marine water; 1 mg/l
- Intermittent release; 100 mg/l

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HYDROCARBONS, C9, aromatics (CAS: 64742-95-6)

DNEL

Professional - Dermal; systemic effects: 25 mg/kg/day
 Professional - Inhalation; systemic effects: 150 mg/m³
 Consumer - Oral; systemic effects: 11 mg/kg/day
 Consumer - Inhalation; systemic effects: 32 mg/m³
 Consumer - Dermal; systemic effects: 11 mg/kg/day

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: 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	Aromatic.
Odour threshold	Not applicable.
pH	Not applicable.
Melting point	Not applicable.
Initial boiling point and range	>200° C
Flash point	23°C
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Not available.
Other flammability	No information available.

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Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.96 @ 20°C
Bulk density	Not available.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	300°C
Decomposition Temperature	Not available.
Viscosity	Not available.
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.
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.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Does not decompose when used and stored as recommended.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames, sparks and other sources of ignition. May ignite or explode on contact with combustible materials.
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10.5. Incompatible materials

Materials to avoid	Flammable/combustible materials.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Ammonia or amines.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	1,606.9
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Acute toxicity - dermal

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ATE dermal (mg/kg) 2,865.33

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.

O,O'-Bis(2-aminopropyl)polypropyleneglycol

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

ATE dermal (mg/kg) 1,100.0

1-METHOXY-2-PROPANOL

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 11700 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 13000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC50 10000 ppm, Inhalation, Rat

NONYLPHENOL

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) 2,031.0

Species Rat

TRIETHYLENETETRAMINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,500.0

Species Rat

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ATE oral (mg/kg) 2,500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 550.0

Species Rabbit

ATE dermal (mg/kg) 1,100.0

HYDROCARBONS, C9, aromatics

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,592.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,160.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 6.2

Species Rat

ATE inhalation (vapours mg/l) 6.2

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 Toxic to aquatic organisms.

Ecological information on ingredients.

O,O'-Bis(2-aminopropyl)polypropyleneglycol

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >100 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 15 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: 135 mg/l, Algae

1-METHOXY-2-PROPANOL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 6812 mg/l, Leuciscus idus (Golden orfe)

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Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: >21000 mg/l, Daphnia magna

NONYLPHENOL

Acute aquatic toxicity

LE(C)₅₀

0.1 < L(E)C₅₀ ≤ 1

M factor (Acute)

1

Acute toxicity - fish

LC₅₀, 96 hours: 0.128 mg/l, Fish

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 0.0848 mg/l, Daphnia magna

Chronic aquatic toxicity

M factor (Chronic)

1

TRIETHYLENETETRAMINE

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, 96 hours: 330 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 31.1 mg/L, Daphnia magna

Acute toxicity - aquatic plants

EC₅₀, 72 hours: 20 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms

EC₅₀, 16 hour: 680 mg/l, Bacteria

HYDROCARBONS, C9, aromatics

Acute aquatic toxicity

Acute toxicity - fish

LC₅₀, : 9.2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates

EC₅₀, : 3.2 mg/l, Daphnia magna

Acute toxicity - aquatic plants

EC₅₀, : 2.6 mg/l, Pseudokirchneriella subcapitata

12.2. Persistence and degradability

Biodegradation

Not readily biodegradable.

Ecological information on ingredients.

1-METHOXY-2-PROPANOL

Persistence and degradability

The product is biodegradable.

HYDROCARBONS, C9, aromatics

Biodegradation

Water - Degradation (%) 78: 28 days
The substance is readily biodegradable.

12.3. Bioaccumulative potential

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Partition coefficient Not available.

Ecological information on ingredients.

1-METHOXY-2-PROPANOL

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

12.4. Mobility in soil

Mobility The product is insoluble 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.

Ecological information on ingredients.

O,O'-Bis(2-aminopropyl)polypropyleneglycol

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

TRIETHYLENETETRAMINE

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 Avoid discharge into drains or watercourses or onto the ground.

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.

Waste class Not available.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 2734

UN No. (IMDG) 2734

UN No. (ICAO) 2734

UN No. (ADN) 2734

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (CONTAINS O,O'-Bis(2-aminopropyl)polypropyleneglycol, 1-METHOXY-2-PROPANOL)

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (CONTAINS O,O'-Bis(2-aminopropyl)polypropyleneglycol, 1-METHOXY-2-PROPANOL, NONYLPHENOL, SOLVENT NAPHTHA)

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (CONTAINS O,O'-Bis(2-aminopropyl)polypropyleneglycol, 1-METHOXY-2-PROPANOL)

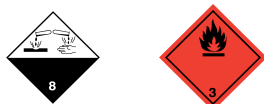
NITOCOTE EPU HARDENER

Proper shipping name (ADN) AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (CONTAINS O,O'-Bis(2-aminopropyl)polypropyleneglycol, 1-METHOXY-2-PROPANOL)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID subsidiary risk	3
ADR/RID classification code	FC
ADR/RID label	8
IMDG class	8
IMDG subsidiary risk	3
ICAO class/division	8
ICAO subsidiary risk	3
ADN class	8
ADN subsidiary risk	3

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



14.6. Special precautions for user

IMDG Code segregation group	18. Alkalies
EmS	F-E, S-C
ADR transport category	2
Emergency Action Code	•2W
Hazard Identification Number (ADR/RID)	83
Tunnel restriction code	(D/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

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 05/04/2020

Revision 2

Supersedes date 02/05/2015

SDS number 21787

Hazard statements in full

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- 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.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H361 Suspected of damaging 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.

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.