

Safety Data Sheet ENEM2120
Date of issue: 28/12/2016 Version: 1.0

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

1.1. Product identifier

Product form : Substance
Physical state : Liquid

Substance name : 2-METHYL-3-BUTENENITRILE, tech-95

Product code : ENEM2120 Formula : C5H7N

Synonyms : 3-CYANOBUT-1-ENE
Chemical family : ORGANONITRILE

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

GELEST, INC.

11 East Steel Road Morrisville, PA 19067

USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com

GELEST INC.

Fritz-Klatte-Strasse 8 65933 Frankfurt

Germany

T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM

info@gelestde.com - www.gelestde.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2
Acute toxicity (oral), Category 3
H301
Acute toxicity (dermal), Category 3
H311
Acute toxicity (inhalation:vapour) Category 3
H331

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





GHS06

GHS02

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.

Print date: 10/04/2019 EN (English) SDS ID: **ENEM2120** 1/10

Safety Data Sheet

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P240 - Ground/bond container and receiving equipment.

P264 - Wash hands thoroughly after handling.

P501 - Dispose of contents/container to licensed waste disposal facility.

P311 - Call a doctor.

2.3. Other hazards

Other hazards not contributing to the classification

: Gelested recommended TLV 10ppm 8 Hr. TWA.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Multi-constituent

Name : 2-METHYL-3-BUTENENITRILE, tech-95

CAS-No. : 16529-56-9 EC-No. : 240-596-1

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Methyl-3-butenenitrile	(CAS-No.) 16529-56-9 (EC-No.) 240-596-1	75 - 100	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:vapour), H331
3-Pentenitrile	(CAS-No.) 4635-87-4 (EC-No.) 225-060-7	0 - 15	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation), H330
2-Methyl-2-buteniyrile	(CAS-No.) 4403-61-6 (EC-No.) 224-544-5	0 - 10	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331
4-Pentenitrile	(CAS-No.) 592-51-8 (EC-No.) 209-762-0	0 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek

medical advice immediately (show the label where possible). If possible show this sheet; if not

available show packaging or label.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON

CENTER/doctor.

First-aid measures after skin contact : Wash with plenty of water/.... Immediately call a POISON CENTER/doctor.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Immediately call a POISON

CENTER/doctor.

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

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Toxic in contact with skin. May cause skin irritation. Skin permeation may occurr in amounts

producing the effects of systemic toxicity.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

Chronic symptoms : Nitriles may be partially metabolized to cyanide in the body. Symptoms of cyanide exposure

include rapid respiration, gasping, headache, drop in blood pressure, vomiting, loss of

consciousness and death.

 Print date: 10/04/2019
 EN (English)
 SDS ID: ENEM2120
 2/10

Safety Data Sheet

Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : None known

Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when

material is exposed to elevated temperatures or open flame.

Explosion hazard : May form flammable/explosive vapour-air mixture.

Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Avoid all eye and skin contact and do not breathe vapour and mist.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with Protective equipment

proper protection. For further information refer to section 8: "Exposure controls/personal

6.2. **Environmental precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or For containment

Clean up any spills as soon as possible, using an absorbent material to collect it. Use only non-Methods for cleaning up

sparking tools.

Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

: Handle empty containers with care because residual vapours are flammable. Keep away from Additional hazards when processed

heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautions for safe handling Avoid all eye and skin contact and do not breathe vapour and mist. Ground/bond container and

receiving equipment. Take precautionary measures against static discharge. Use only outdoors

or in a well-ventilated area. Use only non-sparking tools.

: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild Hygiene measures

soap and water before eating, drinking or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities

Technical measures Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof

electrical equipment.

Storage conditions : Keep container tightly closed. Keep in a cool place. Incompatible materials

: Acids. alcohols. Oxidizing agent. Peroxides.

: Store in a well-ventilated place. Store away from heat. Storage area

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

No additional information available

Print date: 10/04/2019 EN (English) SDS ID: ENEM2120 3/10

Safety Data Sheet

8.2. Exposure controls

Appropriate engineering controls:

Handle in an enclosing hood with exhaust ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor - amine gas (brown cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear liquid.
Molecular mass : 81.11 g/mol
Colour : Amber.
Odour : Distinct.

Odour threshold : No data available

Refractive index : No additional information available

pH : No data available

Relative evaporation rate (butylacetate=1) : ~ 1

Melting point : No data available

Freezing point : < 0 °C Boiling point : 124 °C Flash point : 15 °C

Auto-ignition temperature : No data available
Decomposition temperature : No data available

Flammability (solid, gas) : Highly flammable liquid and vapour.

Vapour pressure : 13.1 mm Hg @ 20°C

Relative vapour density at 20 °C : > 1
Relative density : 0.82
% Volatiles : < 40 %

Solubility : Slightly. Soluble in water.

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable when stored in sealed containers.

Print date: 10/04/2019 EN (English) SDS ID: **ENEM2120** 4/10

Safety Data Sheet

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Acids. alcohols. Peroxides. Oxidizing agent.

10.6. Hazardous decomposition products

Organic amine vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

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ATE CLP (gases) 700 ppmv/4h ATE CLP (vapours) 3 mg/l/4h ATE CLP (dust,mist) 0.5 mg/l/4h 4-Pentenitrile (592-51-8) LC50 inhalation rat 2550 ppm/4h LDLo inhalation rat 2250 mg/kg ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (oral)	100 mg/kg bodyweight		
ATE CLP (vapours) 3 mg/l/4h ATE CLP (dust,mist) 0.5 mg/l/4h 4-Pentenitrile (592-51-8) 2550 ppm/4h LC50 inhalation rat 2550 ppm/4h LDLo inhalation rat 2250 mg/kg ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (dermal)	300 mg/kg bodyweight		
ATE CLP (dust,mist) 0.5 mg/l/4h 4-Pentenitrile (592-51-8) 2550 ppm/4h LC50 inhalation rat 2550 ppm/4h LDLo inhalation rat 2250 mg/kg ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (gases)	700 ppmv/4h		
4-Pentenitrile (592-51-8) LC50 inhalation rat 2550 ppm/4h LDLo inhalation rat 2250 mg/kg ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (vapours)	3 mg/l/4h		
LC50 inhalation rat 2550 ppm/4h LDLo inhalation rat 2250 mg/kg ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (dust,mist)	0.5 mg/l/4h		
LDLo inhalation rat 2250 mg/kg ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	4-Pentenitrile (592-51-8)			
ATE CLP (oral) 500 mg/kg bodyweight ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	LC50 inhalation rat	2550 ppm/4h		
ATE CLP (dermal) 1100 mg/kg bodyweight ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	LDLo inhalation rat	2250 mg/kg		
ATE CLP (gases) 4500 ppmv/4h ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (oral)	500 mg/kg bodyweight		
ATE CLP (vapours) 11 mg/l/4h ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (dermal)	1100 mg/kg bodyweight		
ATE CLP (dust,mist) 1.5 mg/l/4h	ATE CLP (gases)	4500 ppmv/4h		
	ATE CLP (vapours)	11 mg/l/4h		
Skin corrosion/irritation Not classified	ATE CLP (dust,mist)	1.5 mg/l/4h		
. Hot oldottion	Skin corrosion/irritation : Not classified			

Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP,

OSHA or ACGIH as a carcinogen.

Reproductive toxicity : Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified Aspiration hazard : Not classified

Print date: 10/04/2019 EN (English) SDS ID: **ENEM2120** 5/10

Safety Data Sheet

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Toxic in contact with skin. May cause skin irritation. Skin permeation may occurr in amounts

producing the effects of systemic toxicity.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : Toxic if swallowing a small quantity of this material will result in serious health

hazard.

Chronic symptoms : Nitriles may be partially metabolized to cyanide in the body. Symptoms of cyanide exposure

include rapid respiration, gasping, headache, drop in blood pressure, vomiting, loss of

consciousness and death.

Reason for classification : Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified Chronic aquatic toxicity : Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : May be incinerated. Dispose in a safe manner in accordance with local/national regulations.

Dispose of contents/container to licensed waste disposal facility.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

 UN-No. (ADR)
 : 1992

 UN-No. (IMDG)
 : 1992

 UN-No. (IATA)
 : 1992

 UN-No. (ADN)
 : 1992

 UN-No. (RID)
 : 1992

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, N.O.S.
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Proper Shipping Name (IATA) : Flammable liquid, toxic, n.o.s.

Proper Shipping Name (ADN) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Proper Shipping Name (RID) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Transport document description (ADR) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (2-METHYL-3-BUTENENITRILE), 3 (6.1), II,

(D/E)

Transport document description (IMDG) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (2-METHYL-3-BUTENENITRILE), 3 (6.1), II

Transport document description (IATA) : UN 1992 Flammable liquid, toxic, n.o.s. (2-METHYL-3-BUTENENITRILE), 3 (6.1), II

Transport document description (ADN) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (2-METHYL-3-BUTENENITRILE), 3 (6.1), II Transport document description (RID) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (2-METHYL-3-BUTENENITRILE), 3 (6.1), II

Print date: 10/04/2019 EN (English) SDS ID: **ENEM2120** 6/10

Safety Data Sheet

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3 (6.1)
Danger labels (ADR) : 3, 6.1



IMDG

Transport hazard class(es) (IMDG) : 3 (6.1)
Danger labels (IMDG) : 3, 6.1



IATA

Transport hazard class(es) (IATA) : 3 (6.1) Hazard labels (IATA) : 3, 6.1



ADN

Transport hazard class(es) (ADN) : 3 (6.1)
Danger labels (ADN) : 3, 6.1



RID

Transport hazard class(es) (RID) : 3 (6.1)
Danger labels (RID) : 3, 6.1



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

Print date: 10/04/2019 EN (English) SDS ID: **ENEM2120** 7/10

Safety Data Sheet

14.6. Special precautions for user

- Overland transport

: FT1 Classification code (ADR) Special provisions (ADR) : 274 Limited quantities (ADR) : 11 Excepted quantities (ADR) : E2

: P001, IBC02 Packing instructions (ADR) Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions : T7

(ADR)

Portable tank and bulk container special : TP2

provisions (ADR) Tank code (ADR)

: I4BH Tank special provisions (ADR) : TU15 Vehicle for tank carriage : FL Transport category (ADR)

Special provisions for carriage - Loading,

unloading and handling (ADR)

: CV13, CV28

: S2, S22

Special provisions for carriage - Operation

(ADR)

Hazard identification number (Kemler No.) 336

Orange plates

336 1992

Tunnel restriction code (ADR) : D/E

- Transport by sea

Special provisions (IMDG) : 274 Limited quantities (IMDG) : 1 L Excepted quantities (IMDG) : E2 P001 Packing instructions (IMDG) IBC packing instructions (IMDG) : IBC02 Tank instructions (IMDG) : T7 : TP2, TP13 Tank special provisions (IMDG) EmS-No. (Fire) : F-E : S-D EmS-No. (Spillage) : B Stowage category (IMDG) Stowage and handling (IMDG) : SW2

Properties and observations (IMDG) : Flammable toxic liquid which is not specified by name in this class or, on account of its characteristics, in some other class. Toxic if swallowed, by skin contact or by inhalation.

- Air transport

PCA Excepted quantities (IATA) : E2 PCA Limited quantities (IATA) : Y341 PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 352 PCA max net quantity (IATA) : 1L CAO packing instructions (IATA) : 364 CAO max net quantity (IATA) : 60L Special provisions (IATA) : A3 ERG code (IATA) : 3HP

- Inland waterway transport

Classification code (ADN) : FT1 Special provisions (ADN) : 274, 802 Limited quantities (ADN) : 1L Excepted quantities (ADN) : E2 Carriage permitted (ADN) : T

Print date: 10/04/2019 SDS ID: ENEM2120 EN (English) 8/10

Safety Data Sheet

Equipment required (ADN) : PP, EP, EX, TOX, A

Ventilation (ADN) : VE01, VE02

Number of blue cones/lights (ADN) : 2

- Rail transport

Classification code (RID) : FT1 Special provisions (RID) : 274 Limited quantities (RID) : 1L Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02 Mixed packing provisions (RID) : MP19 : T7

Portable tank and bulk container instructions

Portable tank and bulk container special

provisions (RID)

Tank codes for RID tanks (RID) : 14BH Special provisions for RID tanks (RID) : TU15 : 2 Transport category (RID)

Special provisions for carriage - Loading, : CW13, CW28

unloading and handling (RID)

: CE7 Colis express (express parcels) (RID) Hazard identification number (RID) : 336

Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

: TP2

EU-Regulations 15.1.1.

No REACH Annex XVII restrictions

2-METHYL-3-BUTENENITRILE, tech-95 is not on the REACH Candidate List

2-METHYL-3-BUTENENITRILE, tech-95 is not on the REACH Annex XIV List

2-METHYL-3-BUTENENITRILE, tech-95 is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

2-METHYL-3-BUTENENITRILE, tech-95 is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

% Volatiles : < 40 %

15.1.2. **National regulations**

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed SZW-lijst van mutagene stoffen The substance is not listed NIET-limitatieve lijst van voor de voortplanting : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting

giftige stoffen - Vruchtbaarheid

giftige stoffen - Borstvoeding

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

: The substance is not listed

Denmark

Class for fire hazard : Class I-1 Store unit : 1 liter

Classification remarks F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids

must be followed

Print date: 10/04/2019 EN (English) SDS ID: ENEM2120 9/10

Safety Data Sheet

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemcial Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information

: Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
` ,	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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Print date: 10/04/2019 EN (English) SDS ID: **ENEM2120** 10/10