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
Acute toxicity (dermal), Category 3
Acute toxicity (inhalation:vapour) Category 3
Full text of H statements: see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

Hazard pictograms (CLP): GHS02, GHS06
Signal word (CLP): Danger
Hazard statements (CLP): H225 - Highly flammable liquid and vapour.
2-METHYL-3-BUTENENITRILE, tech-95
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Precautionary statements (CLP):

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

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

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

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 occur 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.
## 2-METHYL-3-BUTENENITRILE, tech-95
### Safety Data Sheet

### 4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable extinguishing media</td>
<td>None known.</td>
</tr>
</tbody>
</table>

#### 5.2. Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th>Fire hazard</th>
<th>Highly flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion hazard</td>
<td>May form flammable/explosive vapour-air mixture.</td>
</tr>
</tbody>
</table>

#### 5.3. Advice for firefighters

<table>
<thead>
<tr>
<th>Firefighting instructions</th>
<th>Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection during firefighting</td>
<td>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.</td>
</tr>
</tbody>
</table>

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

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

**For non-emergency personnel**

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Wear protective equipment as described in Section 8.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency procedures</td>
<td>Evacuate unnecessary personnel.</td>
</tr>
</tbody>
</table>

**For emergency responders**

<table>
<thead>
<tr>
<th>Protective equipment</th>
<th>Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: &quot;Exposure controls/personal protection&quot;.</th>
</tr>
</thead>
</table>

#### 6.2. Environmental precautions

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

#### 6.3. Methods and material for containment and cleaning up

**For containment**

<table>
<thead>
<tr>
<th>Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.</th>
</tr>
</thead>
</table>

**Methods for cleaning up**

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

#### 6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

<table>
<thead>
<tr>
<th>Additional hazards when processed</th>
<th>Handle empty containers with care because residual vapours are flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precautions for safe handling</td>
<td>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.</td>
</tr>
<tr>
<td>Hygiene measures</td>
<td>Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.</td>
</tr>
</tbody>
</table>

#### 7.2. Conditions for safe storage, including any incompatibilities

<table>
<thead>
<tr>
<th>Technical measures</th>
<th>Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage conditions</td>
<td>Keep container tightly closed. Keep in a cool place.</td>
</tr>
<tr>
<td>Storage area</td>
<td>Store in a well-ventilated place. Store away from heat.</td>
</tr>
</tbody>
</table>

#### 7.3. Specific end use(s)
No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters
No additional information available
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.
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10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
Heat. Open flame. Sparks.

10.5. Incompatible materials

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.

2-METHYL-3-BUTENENITRILE, tech-95 (16529-56-9)

ATE CLP (oral) 175.121 mg/kg bodyweight
ATE CLP (dermal) 407.585 mg/kg bodyweight
ATE CLP (vapours) 3 mg/l/4h

2-Methyl-3-butenenitrile (16529-56-9)

LD50 oral rat 232 mg/kg
LD50 dermal rabbit 482 mg/kg
LC50 inhalation rat (ppm) 3000 ppm/4h
ATE CLP (oral) 232 mg/kg bodyweight
ATE CLP (dermal) 482 mg/kg bodyweight
ATE CLP (gases) 3000 ppmv/4h
ATE CLP (vapours) 3 mg/l/4h

3-Pentenitrile (4635-87-4)

LC50 inhalation rat 420 ppm/4h
LDLo inhalation rat 300 mg/kg
ATE CLP (oral) 500 mg/kg bodyweight
ATE CLP (gases) 100 ppmv/4h
ATE CLP (vapours) 0.5 mg/l/4h
ATE CLP (dust,mist) 0.05 mg/l/4h

2-Methyl-2-buteniyrlie (4403-61-6)

LC50 inhalation rat 420 ppm/4h
ATE CLP (oral) 100 mg/kg bodyweight
ATE CLP (dermal) 300 mg/kg bodyweight
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

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
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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 occur 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.
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
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
## 14.6. Special precautions for user

### - Overland transport

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification code (ADR)</td>
<td>FT1</td>
</tr>
<tr>
<td>Special provisions (ADR)</td>
<td>274</td>
</tr>
<tr>
<td>Limited quantities (ADR)</td>
<td>1 L</td>
</tr>
<tr>
<td>Excepted quantities (ADR)</td>
<td>E2</td>
</tr>
<tr>
<td>Packing instructions (ADR)</td>
<td>P001, IBC02</td>
</tr>
<tr>
<td>Mixed packing provisions (ADR)</td>
<td>MP19</td>
</tr>
<tr>
<td>Portable tank and bulk container instructions (ADR)</td>
<td>T7</td>
</tr>
<tr>
<td>Portable tank and bulk container special provisions (ADR)</td>
<td>TP2</td>
</tr>
<tr>
<td>Tank code (ADR)</td>
<td>L4BH</td>
</tr>
<tr>
<td>Tank special provisions (ADR)</td>
<td>TU15</td>
</tr>
<tr>
<td>Vehicle for tank carriage</td>
<td>FL</td>
</tr>
<tr>
<td>Transport category (ADR)</td>
<td>2</td>
</tr>
<tr>
<td>Special provisions for carriage - Loading, unloading and handling (ADR)</td>
<td>CV13, CV28</td>
</tr>
<tr>
<td>Special provisions for carriage - Operation (ADR)</td>
<td>S2, S22</td>
</tr>
<tr>
<td>Hazard identification number (Kemler No.)</td>
<td>336</td>
</tr>
<tr>
<td>Orange plates</td>
<td>1992</td>
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</tbody>
</table>

Tunnel restriction code (ADR): D/E

### - Transport by sea

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special provisions (IMDG)</td>
<td>274</td>
</tr>
<tr>
<td>Limited quantities (IMDG)</td>
<td>1 L</td>
</tr>
<tr>
<td>Excepted quantities (IMDG)</td>
<td>E2</td>
</tr>
<tr>
<td>Packing instructions (IMDG)</td>
<td>P001</td>
</tr>
<tr>
<td>IBC packing instructions (IMDG)</td>
<td>IBC02</td>
</tr>
<tr>
<td>Tank instructions (IMDG)</td>
<td>T7</td>
</tr>
<tr>
<td>Tank special provisions (IMDG)</td>
<td>TP2, TP13</td>
</tr>
<tr>
<td>EmS-No. (Fire)</td>
<td>F-E</td>
</tr>
<tr>
<td>EmS-No. (Spillage)</td>
<td>S-D</td>
</tr>
<tr>
<td>Stowage category (IMDG)</td>
<td>B</td>
</tr>
<tr>
<td>Stowage and handling (IMDG)</td>
<td>SW2</td>
</tr>
<tr>
<td>Properties and observations (IMDG)</td>
<td>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.</td>
</tr>
</tbody>
</table>

### - Air transport

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCA Excepted quantities (IATA)</td>
<td>E2</td>
</tr>
<tr>
<td>PCA Limited quantities (IATA)</td>
<td>Y341</td>
</tr>
<tr>
<td>PCA limited quantity max net quantity (IATA)</td>
<td>1L</td>
</tr>
<tr>
<td>PCA packing instructions (IATA)</td>
<td>352</td>
</tr>
<tr>
<td>PCA max net quantity (IATA)</td>
<td>1L</td>
</tr>
<tr>
<td>CAO packing instructions (IATA)</td>
<td>364</td>
</tr>
<tr>
<td>CAO max net quantity (IATA)</td>
<td>60L</td>
</tr>
<tr>
<td>Special provisions (IATA)</td>
<td>A3</td>
</tr>
<tr>
<td>ERG code (IATA)</td>
<td>3HP</td>
</tr>
</tbody>
</table>

### - Inland waterway transport

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification code (ADN)</td>
<td>FT1</td>
</tr>
<tr>
<td>Special provisions (ADN)</td>
<td>274, 802</td>
</tr>
<tr>
<td>Limited quantities (ADN)</td>
<td>1 L</td>
</tr>
<tr>
<td>Excepted quantities (ADN)</td>
<td>E2</td>
</tr>
<tr>
<td>Carriage permitted (ADN)</td>
<td>T</td>
</tr>
</tbody>
</table>
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**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
**Portable tank and bulk container instructions (RID)**  : T7
**Portable tank and bulk container special provisions (RID)**  : TP2
**Tank codes for RID tanks (RID)**  : L4BH
**Special provisions for RID tanks (RID)**  : TU15
**Transport category (RID)**  : 2
**Special provisions for carriage - Loading, unloading and handling (RID)**  : CW13, CW28
**Colis express (express parcels) (RID)**  : CE7
**Hazard identification number (RID)**  : 336

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

Not applicable

**SECTION 15: Regulatory information**

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

**15.1.1. EU-Regulations**

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.


**15.1.2. National regulations**

**Germany**

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV  : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

SZW-list van kankerverwekkende stoffen  : The substance is not listed

SZW-list van mutagene stoffen  : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding  : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid  : 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

% Volatiles  : < 40 %
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.: Chemical 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:

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

SDS EU (REACH Annex II) - Custom

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