

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: **ACI-60**

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

Product application: Well Stimulation in Oilfield.

1.3. Details of the supplier of the safety data sheet

Address/Phone No.: Elkem Oilfield Chemicals FZCO
 Bldg 16, Office 405, Jebel Ali Free Zone
 PO Box 262213, Dubai, U.A.E
 Telephone: +971 4 887 6069
 Telefax: +971 4 887 2155
 Abdel Belmahi, e-mail: sds.esm@elkem.no

1.4. Emergency Phone No.: +1-800-424-9300

2. Hazards identification

2.1. Classification of the substance or mixture

Product classification according to Regulation (EC) No 1272/2008 (CLP) and the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 9th revision.

| | | |
|----------------------------|------------------------------|-------------------------------------|
| Hazard class and category: | Flammable liquids: | Category 2 |
| | Acute toxicity (oral): | Category 4 |
| | Acute toxicity (inhalation): | Category 4 |
| | Acute toxicity (dermal): | Category 4 |
| | Skin corrosion: | Category 1B |
| | Serious eye damage: | Category 1 |
| | Skin sensitization: | Category 1 |
| | Carcinogenicity: | Category 1B |
| | Reproductive toxicity: | Category 1B |
| | STOT single exposure: | Category 1 (Eyes) |
| | STOT single exposure: | Category 2 |
| | STOT single exposure | Category 3 (Central Nervous System) |

2.2. Label elements

Hazard pictograms:



Signal word:
DANGER

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Hazard statements:

H225: Highly flammable liquid and vapour.
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H332: Harmful if inhaled.
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H360: May damage fertility or the unborn child.
H370: Causes damage to organs (Eyes).
H371: May cause damage to organs

Precautionary statements:

Prevention

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash 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.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.

Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P235 – Keep cool.
P405 – Store locked up.

Disposal

P501 – Dispose of contents/container to an approved waste disposal plant.

Response

P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301 + P330 + P331 – IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P307 + P311 – IF exposed: Call a POISON CENTER or doctor/physician.
P310 – Immediately call a POISON CENTER or doctor/physician.
P333 – If skin irritation or rash occurs: Get medical advice/ attention.
P363 – Wash contaminated clothing before reuse.
P370 + P378 – In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

2.3. Other hazards: -

3. Composition/information on ingredients

3.2. Mixture

| Chemical Name | CAS-No | Concentration: (%) |
|--------------------------------|-------------|--------------------|
| Formamide | 75-12-7 | 10 – 30 |
| Haloalkyl heteropolycycle salt | Proprietary | 10 – 30 |
| Methanol | 67-56-1 | 10 – 30 |
| Isopropanol | 67-63-0 | 10 – 30 |
| Oxyalkylate | Proprietary | 5 – 10 |
| Propargyl alcohol | 107-19-7 | 1 – 5 |
| Substituted alcohol | Proprietary | 1 – 5 |
| Heavy Aromatic Naphtha | 64742-94-5 | 1 – 5 |
| Pine Oil | 8003-09-3 | 1 – 5 |
| Naphthalene | 91-20-3 | 0.1 – 1 |
| Benzyl Chloride | 100-44-7 | 0.1 - 1 |

4. First aid measures

4.1. Description of first aid measures

4.1.1. **General information:** See 4.1.2 - 4.1.6.

4.1.2. Inhalation:

Remove to fresh air. Treat symptomatically. Get medical attention.

4.1.3. Skin contact:

Wash off immediately with plenty of water for at least 15 minutes. Use mild soap to an unconscious person. Get medical attention immediately.

4.1.4. Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

4.1.5. Ingestion:

Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.1.6. Self-protection of the first aider:

In event of emergency, assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

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

See Section 11 for more detailed information on health effects and symptoms.

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

Specific treatment: First aid, treatment of symptoms.

Notes for the doctor: Treat symptomatically.

5. Firefighting measures

5.1. Extinguishing media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: High volume water jet.

Specific extinguishing methods: Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

5.2. Special hazards arising from the substance or mixture:

Fire hazard. Keep away from heat and sources of ignition.

Flash back possible over considerable distance.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Hazardous combustion products: Decomposition products may include the following materials:

Carbon oxides nitrogen oxides (NO_x) Hydrogen chloride.

5.3. Advice for firefighters:

Use personal protective equipment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Ensure adequate ventilation. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentration above the exposure limit they must use appropriate certified respirator/ ensure clean-up is conducted by trained person only. Refer to protective measures listed in section 7 and 8.

6.1.2. For emergency responders

Use personal protective equipment as described in section 8.

6.2. Environmental precautions

Do not allow contact with soil, surface or ground water.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment.

Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulation (see section 13).

6.3.2. For cleaning up:

For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

6.3.3. Other information:

None.

6.4. Reference to other sections

For disposal considerations, see section 13.

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Do not ingest. Keep away from fire, spark and heated surfaces. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

7.1.1.

Use only adequate ventilation. Stir well prior to use.

7.1.2.

Do not to eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Continues next page

Suitable material: The following compatibility data is suggested based on similar product data and/or industry experience: PTFE, HDPE (high density polyethylene), Carbon Steel C1018, Stainless Steel 316L, MDPE, Perfluoroelastomer, FEP (encapsulated), TFE Hastelloy C-276, Aluminum, PVC, Mild steel.

Unsuitable material: The following compatibility data is suggested based on similar product data and/or industry experience: Neoprene, Nitrile, Brass, Buna-N, Copper, Ethylene propylene, EPDM, Nylon, Natural rubber, Polyurethane, Polypropylene, Plexiglass, Polytetrafluoroethylene/polypropylene copolymer, Chlorosulfonated polyethylene rubber, Fluoroelastomer.

7.3. Specific end use(s)

Recommendations: Observe instructions before use.

8. Exposure controls/personal protection

8.1. Control parameters

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|-----------------------|------------|------------------|------------------------------------|-----------|
| Formamide | 75-12-7 | TWA | 10 ppm | ACGIH |
| | | TWA | 10ppm 15mg/m ³ | NIOSH REL |
| Methanol | 67-56-1 | TWA | 200ppm | ACGIH |
| | | STEL | 250 ppm | ACGIH |
| | | TWA | 200ppm 260mg/m ³ | NIOSH REL |
| | | STEL | 250 ppm 325 mg/m ³ | NIOSH REL |
| | | TWA | 200 ppm 260 mg/m ³ | OSHA Z1 |
| | | | | |
| isopropanol | 67-63-0 | TWA | 1 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| | | TWA | 400 ppm 980 mg/m ³ | NIOSH REL |
| | | STEL | 500 ppm 1,225 mg/m ³ | NIOSH REL |
| | | TWA | 400 ppm 980 ,g/m ³ | OSHA Z1 |
| | | | | |
| Propargyl alcohol | 107-19-7 | TWA | 1 ppm | ACGIH |
| | | TWA | 1 ppm 2 mg/m ³ | NIOSH REL |
| Heavy Aromatic Naptha | 64742-94-5 | TWA | 500 ppm 2,000 mg/m ³ | OSHA Z1 |
| | | TWA | 200 mg/m ³ | ACGIH |
| Naphthalene | 91-20-3 | TWA | 10 ppm | ACGIH |
| | | TWA | 10 ppm 50 mg/m ³ | NIOSH REL |
| | | STEL | 15 ppm 75 mg/m ³ | NIOSH REL |
| | | TWA | 10 ppm 50 mg/m ³ | OSHA Z1 |
| Benzyl Chloride | 100-44-7 | TWA | 1 ppm | ACGIH |
| | | Ceiling | 1 ppm 5 mg/m ³ | NIOSH REL |
| | | TWA | 1 ppm 5 mg/m ³ | OSHA Z1 |

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide satisfactory ventilation. Effective exhaust ventilation system maintain air concentrations below occupational exposure standards.

8.2.2. Individual protection measures, such as personal protective equipment



Eye protection:

Safety goggles
Face-shield

Hand protection:

Wear protective gloves.
Gloves should be discharge and replace if there is any indication of degradation or chemical breakthrough.

Skin protection:

Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing.

Respiratory protection:

When workers are facing concentration above the exposure limit they must use appropriate certified respirators.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

8.2.3. Environmental exposure controls

-

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| Appearance: | Liquid |
| Colour: | Dark |
| Odour: | Alcoholic |
| Flash point: | 17.8 °C |
| pH: | Method: ASTM D 56, Tag closed cup no data available |
| Odour Threshold: | no data available |
| Melting point/freezing point: | POUR POINT: -53.9 °C, ASTM D-97 |
| Initial boiling point and boiling range: | 76 °C (760mm Hg) |
| Evaporation rate: | 2.1 (BuAc = 1) |
| Flammability (solid, gas): | no data available |
| Upper explosion limit: | 36 V% |
| Lower explosion limit: | 0.8 V% |
| Relative vapour density: | no data available |
| Relative density: | 0.98 (15.6 °C) ASTM D4052 |

| | |
|---|--|
| Density: | 8.3 lb/gal |
| Water solubility: | dispersible |
| Solubility in other solvents: | no data available |
| Partition coefficient: n-octanol/water: | no data available |
| Auto-ignition temperature: | no data available |
| Thermal decomposition temperature: | no data available |
| Viscosity, dynamic: | no data available |
| Viscosity, kinematic: | 4.4 mm ² /s (38 °C) estimated |
| VOC: | no data available |

10. Stability and reactivity

- 10.1. Reactivity:** Stable under normal conditions.
- 10.2. Chemical stability:** The product is chemically stable when handled as recommended.
- 10.3. Possibility of hazardous reactions:**
No dangerous reaction known under conditions of normal use.
- 10.4. Conditions to avoid:** Heat, flames and sparks.
- 10.5. Incompatible materials:** Oxidizing agents.
- 10.6. Hazardous decomposition products:**
Oxides of carbon. Oxides of nitrogen. Hydrogen chloride.

11. Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure: Inhalation, Eye contact, Skin contact.

Potential Health Effects

| | |
|-------------------------|---|
| Eyes: | Causes serious eye damage. |
| Skin: allergic skin | Harmful in contact with skin. Causes severe skin burns. May cause reaction. |
| Ingestion: digestive | May cause blindness if swallowed. Harmful if swallowed. Causes tract burn. |
| Inhalation: may | Harmful if inhaled. May cause nose, throat, and lung irritation. Inhalation may cause central nervous system effects. |
| Chronic exposure: | May cause cancer. May cause damage to organs. |

Experience with human exposure

| | |
|---------------|---|
| Eye contact: | Redness, Pain, Corrosion. |
| Skin contact: | Redness, Pain, Irritation, Corrosion, Allergic reactions. |
| Ingestion: | Corrosion, Abdominal pain. |
| Inhalation: | Respiratory irritation, Cough, Dizziness, Drowsiness. |

Toxicity

Product

| | |
|------------------------------------|---|
| Acute oral toxicity: | Acute toxicity estimate : 508.29 mg/kg |
| Acute inhalation toxicity: | Acute toxicity estimate : 12.39 mg/l Exposure time : 4 h |
| Acute dermal toxicity: | Acute toxicity estimate : 1,554 mg/kg |
| Skin corrosion/irritation: | No data available |
| Serious eye damage/eye irritation: | No data available |
| Respiratory or skin sensitization: | No data available |

Carcinogenicity

| | |
|------|--|
| IARC | Group 2A: Probably carcinogenic to humans |
| | Benzyl Chloride 100-44-7 |
| | Group 2B: Possibly carcinogenic to humans |

| | | |
|----------------------------------|---|---------|
| OSHA | Naphthalene No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. | 91-20-3 |
| NTP | Reasonably anticipated to be a human carcinogen | |
| Reproductive effects: | Naphthalene | 91-20-3 |
| Germ cell mutagenicity: | No data available | |
| Teratogenicity: | No data available | |
| STOT – single exposure: | Suspected of damaging fertility. Suspected of damaging the unborn child. | |
| STOT – repeated exposure: | No data available | |
| Aspiration toxicity: | No data available | |
| Endocrine disrupting properties: | The product is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU)2017/2100 or Commission Regulation (EU)2018/605. | |

12. Ecological information

12.1. Toxicity

| | |
|------------------------|--|
| Environmental effects: | Toxic to aquatic life with long lasting effects. |
|------------------------|--|

Components

| | |
|----------------|---|
| Toxic to fish: | Methanol LC50 : 15,400 mg/l Exposure time: 96 h |
| | Isopropanol LC50 Fish: 9,640 mg/l Exposure time: 96 h |
| | Oxyalkylate LC50 Fish: 9,640 mg/l Exposure time: 96 h |
| | Heavy Aromatic Naphtha LC50 Oncorhynchus mykiss (rainbow trout): 305 mg/l Exposure time: 48 h |

Components

| | |
|--|---|
| Toxicity to daphnia and other aquatic invertebrates: | Methanol EC50 : > 10,000 mg/l Exposure time: 48 h |
| | Substituted alcohol EC50 : > 500 mg/l Exposure time: 48 h |

Continues next page

Components

| | |
|-----------------|---|
| Toxic to algae: | Methanol EC50 : 22,000 mg/l Exposure time: 72 h |
|-----------------|---|

Components

| | |
|--------------------|--------------------------|
| Toxic to bacteria: | Methanol > 1,000 mg/l |
|--------------------|--------------------------|

12.2. Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

12.3. Bioaccumulative potential

Component substances have a low potential to bioconcentrate.

12.4. Mobility

The environmental fate was estimated using a level II fugacity model embedded in the EPI (estimation program interface) Suite TM, provide by the US EPA. The model assumes a steady state condition between the total input and output. The level II model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models. If release into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

| | |
|--------|-----------|
| Air: | < 5 % |
| Water: | 30 – 50 % |
| Soil: | 50 – 70 % |

The portion in water is expected to float on the surface.

12.5 Endocrine disrupting properties: The product is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU)2017/2100 or Commission Regulation (EU)2018/605.

13. Disposal considerations

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

13.1. Waste treatment methods

Dispose of as unused product.

13.1.1. Product/packaging disposal:

Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

13.1.2. Waste treatment-relevant information:

Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

13.1.3. Sewage disposal-relevant information:

The product should not be allowed to enter drains water courses or the soil.

13.1.4. Other disposal recommendations: -

14. Transport Information

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

| | |
|------------------------------------|---|
| Proper shipping name: | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Technical name(s): | METHANOL, QUATERNARY AMMONIUM COMPOUND |
| UN/ID No.: | UN 2924 |
| Transport hazard class(es): | 3, 8 |
| Packing group: | II |
| Reportable Quantity (per package): | 18,762 lbs |
| RQ Component: | NAPHTHALENE |

Air transport (IATA)

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

| | |
|------------------------------------|---|
| Proper shipping name: | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Technical name(s): | METHANOL, QUATERNARY AMMONIUM COMPOUND |
| UN/ID No.: | UN 2924 |
| Transport hazard class(es): | 3, 8 |
| Packing group: | II |
| Reportable Quantity (per package): | 18,762 lbs |
| RQ Component: | NAPHTHALENE |

Sea transport (IMDG/IMO)

| | |
|-----------------------------|---|
| Proper shipping name: | FLAMMABLE LIQUID, CORROSIVE, N.O.S. |
| Technical name(s): | METHANOL, QUATERNARY AMMONIUM COMPOUND |
| UN/ID No.: | UN 2924 |
| Transport hazard class(es): | 3, 8 |
| Packing group: | II |

15. Regulatory information

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

National and international legislation/requirements:

This Safety Data Sheet is prepared in compliance with Regulation (EC) 1907/2006 (REACH), Regulation (EC) 1272/2008 (CLP) and Regulation (EU) 2020/878 (Safety Data Sheet Regulation) which are aligned with the UN Globally Harmonized System of Classification and Labelling of Chemicals (9th rev.), GHS.

15.2. Chemical safety assessment

Based on the hazard profile of the individual components of the mixture.

EPCRA – Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|-------------|---------|--------------------|-----------------------------|
| Naphthalene | 91-20-3 | 100 | 18762 |

SARA 304 Extremely Hazardous Substances Reportable Quantity

| Components | CAS-No. | Component RQ (lbs) | Calculated product RQ (lbs) |
|-----------------|----------|--------------------|-----------------------------|
| Benzyl chloride | 100-44-7 | 100 | 43403 |

SARA 311/312 Hazards:

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

SARA 302:

The following components are subject to reporting levels established by SARA Title II, Section 302:
Benzyl Chloride 100-44-7

SARA 313:

The following components are subject to reporting levels established by SARA Title II, Section 313:

| | | |
|-------------------|----------|-----------|
| Methanol | 67-56-1 | 10 – 30 % |
| Propargyl alcohol | 107-19-7 | 1 – 5 % |
| Naphthalene | 91-20-3 | 0.1 – 1 % |

California prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

| | |
|-----------------|----------|
| Naphthalene | 91-20-3 |
| Benzyl Chloride | 100-44-7 |

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

| | |
|----------|---------|
| Methanol | 67-56-1 |
|----------|---------|

INTERNATIONAL CHEMICAL CONTROL LAWS TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710).

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

This product contains substances which are found on the Non-Domestic Substances List (NDSL), or are not in compliance with other Canadian Acts.

AUSTRALIA

This product contains substances which are not compliance with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS) and may require additional review.

16. Other Information

(i) Indication of changes:

New format.

Revision 04: logo, added EDC properties assessment (11 & 12.5), EU 2020/878 Reference, GHS 9th edition

(ii) Abbreviations and acronyms

| | |
|---------|---|
| CAS No: | Chemical Abstracts Service number |
| CE: | Conformité Européene (Key indicator of a product's compliance with EU legislation) |
| CLP: | Classification, Labelling and Packaging Regulation |
| CSA: | Chemical Safety Assessment |
| CSR: | Chemical Safety Report |
| EC: | European Commission |
| ECHA: | European Chemicals Agency |
| EINECS: | European Inventory of Existing Commercial Chemical Substances |
| IMDG: | International Maritime Dangerous Goods Code |
| ADR | The European Agreement concerning the International Carriage of Dangerous Goods by Road |
| RID: | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| ICAO: | International Civil Aviation Organization |
| IATA: | International Air Transport Association |
| PBT: | Persistent, Bioaccumulative and Toxic |
| REACH: | Registration, Evaluation and Authorisation of Chemicals. |
| vPvB: | Very Persistent and very Bioaccumulative |
| SDS: | Safety Data Sheet |
| UN: | United Nations |

(iii) Key literature references and sources for data

-

(iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Safety data sheets, CLP Regulation and expert judgement.

(v) Relevant H-statements:

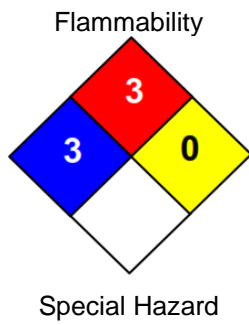
See section 2.2.

(vi) Training advice:

-

(vii) Further information:

NFPA:



HMIS III:

| | |
|------------------------|-----------|
| HEALTH | 3* |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic