# SAFETY DATA SHEET

SD4110-R00

## 1. Identification

### GHS PRODUCT IDENTIFIER

Product name: Cap Mix A (THF/Pyridine/Acetic Anhydride 8:1:1)

### OTHER MEANS OF IDENTIFICATION

Item number: 4110
Catalogue number(s): 4110-YZZZ, where Y=letters A-Z, ZZZ=numbers 000-999
Brand: Not applicable.

### RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

For laboratory and manufacturing use. Not for drug, household or other use.

### SUPPLIER'S DETAILS

Link Technologies Ltd
3 Mallard Way
Strathclyde Business Park
Bellshill
Lanarkshire, ML4 3BF
Scotland

Tel: +44 (0) 1698 849911
Fax: +44 (0) 1698 849922
E-Mail: sales@linktech.co.uk

### EMERGENCY PHONE NUMBER

+44 (0) 1698 849911 (Monday to Friday 8 am to 6 pm)

## 2. Hazard identification

### GHS CLASSIFICATION OF THE SUBSTANCE/MIXTURE

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

| | |
|---|---|
| Flammable Liquid: | Category 2 |
| Acute Toxicity | Category 4 |
| Skin Corrosion | Category 1B |
| Eye Irritation: | Category 2 |
| Carcinogenicity | Category 2 |
| Specific Target Organ Toxicity Single exposure – Respiratory system | Category 3 |

Classification according to EU Directives 67/548/EEC or 1999/45/EC
[Pertinent to tetrahydrofuran and pyridine; no data available for acetic anhydride]

| | |
|---|---|
| R19 | May form explosive peroxides. |
| F; R11 | Highly flammable. |
| Xi; R36/37 | Irritating to eyes and respiratory system. |
| Carc. Cat. 3; R40 | Limited evidence of a carcinogenic effect. |
| Xn; R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| Xi; R36/38 | Irritating to eyes and skin. |

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS**

Pictogram

Signal word: Danger

**Hazard Statements**

| | |
|---|---|
| H225: | Highly flammable liquid and vapour. |
| H302: | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage |
| H318: | Causes serious eye damage. |
| H332: | Harmful if inhaled. |
| H335: | May cause respiratory irritation. |
| H351: | Suspected of causing cancer. |

**Precautionary Statements**

Prevention

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P243 | Take actions to prevent static discharges. |
| P260 | Do not breathe vapours. |
| P264 | Wash hands thoroughly after handling |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P403 | Store in a well-ventilated place. |

Response

| | |
|---|---|
| P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303 + P361 + P353 | IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

| | |
|---|---|
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTRE/doctor. |
| P337 + P313 | If eye irritation persists: Get medical advice/attention. |
| P370 + P378 | In case of fire: Use $CO_2$ to extinguish. |
| P501 | Dispose of contents/container to in accordance with local/regional/national /international regulations. |

**OTHER HAZARDS**

EUH019 May form explosive peroxides.

Additionally, the classification provided by companies to ECHA in REACH registrations identifies that acetic anhydride is fatal if inhaled.

## 3. Composition/information on ingredients

**MIXTURES**

**Hazardous ingredients according to Regulation (EC) No 1272/2008**

| Component | | Classification | Concentration |
|---|---|---|---|
| **Tetrahydrofuran** | | | |
| CAS No<br>EC No<br>Index No<br>Registration No | 109-99-9<br>203-726-8<br>603-025-00-0<br>01-2119444314-46-XXXX | Flammable Liquid 2; Acute Tox. 4; Eye Irritation 2A; STOT SE 3; Carcinogen 2.<br>H225, H302, H319, H335, H351.<br>EUH019. | 80% |
| **Acetic Anhydride** | | | |
| CAS No<br>EC No<br>Index No<br>Registration No | 108-24-7<br>203-564-8<br>607-008-00-9<br>01-2119433003-58-XXXX | Flammable Liquid 3; Acute Tox. 4;<br>Skin Corr. 1B; Eye Dam. 1.<br>H226, H332, H314, H318. | 10% |
| **Pyridine** | | | |
| CAS No<br>EC No<br>Index No<br>Registration No | 110-86-1<br>203-809-9<br>613-002-00-7<br>01-2119493105-40-XXXX | Flammable Liquid 2; Acute Tox. 4;<br>Skin Irrit. 2; Eye Irrit. 2.<br>H225, H302, H312, H332, H315, H320. | 10% |

**Hazardous ingredients according to Directive 1999/45/EC**

| Component | | Classification | Concentration |
|---|---|---|---|
| **Tetrahydrofuran** | | | |
| CAS No<br>EC No<br>Index No<br>Registration No | 109-99-9<br>203-726-8<br>603-025-00-0<br>01-2119444314-46-XXXX | R19 May form explosive peroxides.<br>F; R11 Highly flammable.<br>Xi; R36/37 Irritating to eyes and respiratory system.<br>Carc. Cat. 3; R40 Limited evidence of a carcinogenic effect. | 80% |
| **Acetic Anhydride** | | | |
| CAS No<br>EC No<br>Index No<br>Registration No | 108-24-7<br>203-564-8<br>607-008-00-9<br>01-2119433003-58-XXXX | No data available. | 10% |
| **Pyridine** | | | |
| CAS No<br>EC No<br>Index No<br>Registration No | 110-86-1<br>203-809-9<br>613-002-00-7<br>01-2119493105-40-XXXX | F; R11 Highly flammable.<br>Xn; R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.<br>Xi; R36/38 Irritating to eyes and skin. | 10% |

## 4. First aid measures

**DESCRIPTION OF NECESSARY MEASURES**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Remove any contaminated clothing. Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes copiously with water for at least 15 minutes. Use a sterile eye wash if available.

**If swallowed**

Do NOT induce vomiting. Keep person calm and immobile. Rinse mouth with water if conscious. Never give anything by mouth to an unconscious person.

**MOST IMPORTANT SYMPTOMS/EFFECTS, ACUTE AND DELAYED**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. See section 11.

**INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY**

No data available.

## 5. Fire-fighting measures

**SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL (E.G. NATURE OF ANY HAZARDOUS COMBUSTION PRODUCTS)**

Possibility of carbon oxides, nitrogen oxides (NOx).

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS**

Wear mask and protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus if necessary.

## 6. Accidental release measures

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Wear protective clothing, respirator, chemical safety goggles, rubber gloves and rubber boots. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Be aware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**ENVIRONMENTAL PRECAUTIONS**

Prevent further leakage or spillage, if safe to do so. Prevent product from entering drains.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

Contain spills using absorbent barriers where available. Clean the contaminated area thoroughly with water taking care to avoid breathing fumes. Dispose of all cleaning materials with care (see section 13), where possible containing in sealed containers for appropriate disposal.

## 7. Handling and storage

**PRECAUTIONS FOR SAFE HANDLING**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Do not eat, drink or smoke when using this product. Keep away from sources of ignition. Take measures to prevent build-up of electrostatic charge.

**CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

Containers should be kept sealed and safely stored when not in use. Store in a cool, dry, well-ventilated area.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store under inert gas. Dry residue can be explosive. Test for peroxide formation periodically and before distillation.

## 8. Exposure controls/personal protection

**CONTROL PARAMETERS (OCCUPATIONAL EXPOSURE LIMIT VALUES OR BIOLOGICAL LIMIT VALUES)**

| Component | CAS No | Value | Control Parameters | Basis |
|---|---|---|---|---|
| Tetrahydrofuran | 109-99-9 | STEL | 100ppm 300mg/m$^3$ | Europe – Commission Directive 2000/39/EC UK – EH40/2005 – Workplace Exposure Limits |
| | | TWA | 50ppm 150mg/m$^3$ | |
| | Remarks | Identifies the possibility of significant uptake through the skin. | | |
| Acetic Anhydride | 108-24-7 | STEL | 2ppm 10mg/m$^3$ | UK – EH40/2005 – Workplace Exposure Limits |
| | | TWA | 0.5ppm 2.5mg/m$^3$ | |
| Pyridine | 110-86-1 | STEL | 10ppm 33mg/m$^3$ | UK – EH40/2005 – Workplace Exposure Limits |
| | | TWA | 5ppm 16mg/m$^3$ | |
| | Remarks | Identifies the possibility of significant uptake through the skin. | | |

**APPROPRIATE ENGINEERING CONTROLS**

General good industrial laboratory hygiene and safety practice. Use product within air-extracted fume hood where possible. Wash hands before breaks and at the end of the workday.

**INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT**

**Eye/face protection**

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Splash contact – 0.3mm butyl rubber

Breakthrough time: 10 min

**Body Protection**

Complete suit protecting against chemicals, flame-retardant antistatic protective clothing. The type of protective equipment must be selected according to the quantity and concentration of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as a back-up to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. Physical and chemical properties

| | |
|---|---|
| Appearance (physical state, colour etc.): | Colourless to yellow liquid. |
| Odour: | Pungent odour |
| Odour threshold: | No data available |
| pH: | No data available |
| Melting point/freezing point: | No data available |
| Initial boiling point and boiling range: | No data available |
| Flash point: | -14.4$^{o}$C |
| Evaporation rate: | No data available |
| Flammability (solid, gas): | Highly flammable |
| Upper/lower flammability or explosive limits: | No data available |
| Vapor pressure: | No data available |
| Vapor density: | No data available |
| Relative density: | No data available |
| Water Solubility: | Fully soluble |
| Partition coefficient: n-octanol/water: | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| Viscosity: | No data available |

| | |
|---|---|
| Empirical formula: | Not applicable. |
| Molecular weight (g/mol): | Not applicable. |

## 10. Stability and reactivity

**REACTIVITY**

No data available.

**CHEMICAL STABILITY**

Stable under recommended storage conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS**

No data available.

**CONDITIONS TO AVOID (E.G. STATIC DISCHARGE, SHOCK OR VIBRATION)**

Heat, flames and sparks. Extremes of temperature and direct sunlight.

**INCOMPATIBLE MATERIALS**

Oxidising agents, reducing agents, bases, acid chlorides, powdered metals, water, alcohols, acids, chloroformates.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Possibility of carbon oxides or nitrogen oxides (NOx) on combustion.

## 11. Toxicological information

**TOXIC EFFECTS**

**Tetrahydrofuran**

*Acute oral toxicity* - Based on the results of acute oral toxicity testing, tetrahydrofuran is classified as Xn;R22 (Harmful if swallowed) under the EU DSD classification criteria (EU Directive 67/548/EEC). It is assigned an Acute Toxicity Category 4 rating (Harmful if swallowed) under the EU CLP classification criteria (EU Regulation 1272/2008).
*Acute inhalation toxicity* - Based on the clear presence of CNS depression in animal studies, tetrahydrofuran is classified as R67 (Vapours may cause drowsiness and dizziness) under the EU DSD classification criteria. Based on the presence of upper respiratory tract irritation in animal studies, tetrahydrofuran would be classified as Xi;R37 (Irritating to respiratory system) under the EU DSD classification criteria. Tetrahydrofuran would be rated STOT SE 3, based on either CNS depression or upper respiratory tract irritation according to the EU CLP classification criteria.
*Acute dermal toxicity* - Based on the results of the key study (rat dermal LD50 >2000 mg/kg), tetrahydrofuran would not be classified under the EU DSD classification criteria. Similarly, tetrahydrofuran would not receive classification under the EU CLP classification criteria.

*Skin irritation* - Based on the results of the key study (Primary Irritation Index of 1.93), tetrahydrofuran would not be rated a primary dermal irritant under the EU DSD criteria (EU Directive 67/548/EEC). Tetrahydrofuran would also not be classified for skin irritation under the EU CLP criteria (EU Regulation 1272/2008).

*Eye irritation* - Based on the results of the key study, tetrahydrofuran would be classified as Xi;R41 (Risk of serious damage to eyes) under the EU DSD criteria (EU Directive 67/548/EEC). This rating is based on severe and possibly irreversible effects on the eye. In the case of the EU CLP criteria (EU Regulation 1272/2008), tetrahydrofuran would be rated Category 1 (Serious eye damage/eye irritation).

*Genetic Toxicity* - THF was generally negative when tested for mutagenicity/cytogenicity in either in vitro or in vivo assays. Based on this evidence, THF would not be rated as a mutagen under either the EU DSD classification system (EU Directive 67/548/EEC) or the EU CLP classification system (EU Regulation 1272/2008).

*Germ cell mutagenicity* - No data available.

*Carcinogenicity* - Tetrahydrofuran has been tested for carcinogenicity in chronic studies on rats and mice by the National Toxicology Program. Critical target organs for neoplasia in these studies included the liver for mice, and kidney in male rats. In exposed male mice, the incidences of hepatocellular tumours were not significantly different from the chamber controls. The lower incidences of hepatocellular neoplasms in male mice at the 1800 ppm exposure concentration was attributed to the reduced survival of this group. The incidences of combined hepatocellular neoplasms in male mice exposed to 200 ppm and in the chamber controls exceeded the historical control range for inhalation studies. The incidence of combined hepatocellular neoplasms in male mice at the 600 ppm exposure concentration was at the upper limit of the historical control range. Female mice exposed at 1800 ppm had significantly greater incidences of hepatocellular neoplasms than those of chamber controls and incidences increased with a positive trend. In addition, the incidences of multiple hepatocellular neoplasms were increased in female mice exposed at 1800 ppm. The incidences of combined hepatocellular neoplasms in female mice exposed to 1800 ppm exceeded the historical range for chamber controls in 2-year NTP inhalation studies. Considering that THF is non-genotoxic, and that the hepatocellular tumours occurred at high, liver enzyme inducing doses, the liver tumours observed in this strain of mice are unlikely to be relevant to human cancer risk.

In rats, Incidences of renal tubule epithelial adenoma were marginally increased in 600 and 1800 ppm males. Female rats did not exhibit renal neoplasia. The nature of these tumours was reviewed and concluded to be associated with age-related chronic progressive nephropathy, a physiological condition common in male rats and unlikely to be of relevance to human cancer risk.

Based on these findings, THF should not be rated for carcinogenicity. However there is a harmonised classification for this substance as a Category 2 carcinogen under the EU CLP classification system (EC No 1272/2008), and this will be applied to the substance.

*Reproductive toxicity* - Tetrahydrofuran is not a selective developmental toxicant based on studies conducted in Wistar rats and in Swiss CD-1 mice. In mice, embryotoxicity was observed at an inhalation exposure concentration (1800 ppm) also causing significant maternal effects. Similarly in rats, no selective effect on the developing foetus is observed. Based on the evidence presented, tetrahydrofuran should not be rated as a reproductive hazard (Substances which cause concern for human fertility) under the EU DSD classification system (EU Directive 647/548/EEC). Similarly, tetrahydrofuran would not be rated under the EU CLP classification system (EU Regulation 1272/2008).

*STOT-single exposure* - Tetrahydrofuran would be rated STOT SE 3, based on either CNS depression or upper respiratory tract irritation according to the EU CLP classification criteria.

*STOT-repeated exposure* - Repeated-dose drinking water toxicity studies in rats indicate tetrahydrofuran is of low toxicity. The subacute and subchronic toxicity of tetrahydrofuran in rats and mice is generally moderate to low following repeated-dose inhalation exposures. Mice are more sensitive than rats following repeated inhalation exposures.
*Aspiration hazard* - No data available

**Acetic Anhydride**

| | |
|---|---|
| Acute toxicity: | No data available |
| Skin corrosion/irritation: | No data available |
| Serious eye damage/irritation: | No data available |
| Respiratory or skin sensitization: | No data available |
| Germ cell mutagenicity: | No data available |
| Carcinogenicity: | No data available |
| Reproductive toxicity: | No data available |
| STOT-single exposure: | No data available |
| STOT-repeated exposure: | No data available |
| Aspiration hazard: | No data available |

**Pyridine**

*Acute oral toxicity* - Toxicity Category IV. The oral LD50 of pyridine is between 800 and 1600 mg/kg bw in rats.
*Acute inhalation toxicity* - Toxicity Category IV. Pyridine was tested in a nose-only exposure protocol in a guideline acute inhalation test. The LC50 in male rats after 4 hours was 4900 ppm or 15852 mg/m3.
*Acute toxicity dermal* - Toxicity Category IV. Pyridine was testing in albino rabbits in an acute dermal toxicity test at 500, 1000 and 2000 mg/kg bw. No deaths occurred at 1000 mg/kg or lower, but all animals died at 2000 mg/kg bw. The LD50 is between 1000 and 2000 mg/kg bw.
*Skin irritation* – Corrosive. Pyridine, applied undiluted to intact and abraded rabbit skin, was corrosive at 24 and 72 hours.
*Eye irritation* – Moderately irritating. Pyridine was evaluated as a moderate eye irritant with corneal damage in rabbits.
*Genetic toxicity* - Cytotoxicity and mutagenic activity was not observed with pyridine in the presence and absence of metabolic activation, according to OECD 471 bacterial reverse mutation assay guidelines.
*Germ cell mutagenicity* - No data available.
*Carcinogenicity* - A 2 year carcinogenicity toxicity study in F344 rats was undertaken with pyridine at doses from 100-400 ppm in the drinking water (7 to 33 mg/kg bw/d). Consumption of water in males and females was increased over control levels, but body weights were significantly lower in the 400 ppm dose group compared with controls. Doses of 400 ppm resulted in a statistically significant increase in renal adenomas and renal tubule hyperplasia, but not renal carcinomas, in males. Females (but not males) displayed a statistically significant increase in mononuclear cell leukemia. Animals of both sexes displayed an increased incidence of non-neoplastic hepatocellular injury and glandular stomach mineralization. The NOAEL was 100 ppm (7 mg/kg bw/d). The NTP concluded that there was some evidence of carcinogenic activity in male F344 rats based on renal adenomas, and equivocal evidence in female F344 rats of carcinogenic activity of pyridine based on mononuclear cell leukemia.
*Reproductive toxicity* - There were no significant adverse findings in male fertility in F344 rats (sperm parameters and testis weights) after 14 weeks of exposure in drinking water to 3-methylpyridine, a category member with pyridine and 2- and 4-methylpyridine. There were no structural effects of this treatment in females, although there was a suggestion of

altered estrus cycling at doses of 325 mg/L and higher. This finding may be the result of other complications of the study, and is not highly relevant for human risk assessment. The NOAEL is 156 mg/L, equivalent to 22-23 mg/kg bw/d.
*STOT-single exposure* - Toxicity Category IV.
*STOT-repeated exposure* – see Carcinogenicity above.
*Aspiration hazard* - No data available

**INFORMATION ON THE LIKELY ROUTES OF EXPOSURE**

Exposure via inhalation, ingestion, skin and eye contact – full data on the health effects of such exposure is not available.

**SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS**

No data available. To the best of our knowledge the chemical, physical and toxicological properties of this substance have not been investigated. Handle with care to avoid all unnecessary exposure and release into the atmosphere. If you feel unwell after using this product then immediately seek medical attention.

**DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE**

Components can cause central nervous system depression, cough, chest pain, difficulty in breathing. Exposure to high airborne concentrations may cause an anaesthetic effect.

**NUMERICAL MEASURES OF TOXICITY (SUCH AS ACUTE TOXICITY ESTIMATES)**

No data available.

## 12. Ecological information

**TOXICITY**

**Tetrahydrofuran**
Based on the short-term toxicity to fish test (which provided the lowest LC50 of all three trophic levels), tetrahydrofuran is not considered classified as hazardous to the environment according to the following criteria: Directive 67/548/EEC; UN GHS; Regulation 1272/2008 (CLP GHS).
**Acetic Anhydride**
No data available.
**Pyridine**
No data available.

**PERSISTENCE AND DEGRADABILITY**

No data available.

**BIOACCUMULATIVE POTENTIAL**

No data available.

**MOBILITY IN THE SOIL**

No data available.

**OTHER ADVERSE EFFECTS**

No data available.

## 13. Disposal Considerations

**DISPOSAL METHODS**

For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in section 8 of the SDS. Dispose by incineration at high temperature in an approved incinerator fitted with appropriate environmental protection equipment taking extra care in igniting, as this material is highly flammable. Contaminated packaging should be treated as product. Dispose of in accordance with all applicable Local, National, State and Federal regulations. Labels should not be removed from containers until they have been thoroughly cleaned in an appropriate manner. Containers should not be treated as domestic waste and disposed of appropriately. Always use an approved disposal company. Do not dispose to drains.

## 14. Transport information

**UN number**

ADR/RID: 2924 IMDG: 2924 IATA: 2924

**UN proper shipping name**

ADR/RID: FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran, Acetic Anhydride)

IMDG: FLAMMABLE LIQUID, N.O.S. (Tetrahydrofuran, Acetic Anhydride)

IATA: Flammable liquid, N.O.S. (Tetrahydrofuran, Acetic Anhydride)

**Transport hazard class(es)**

ADR/RID: 3 (8) IMDG: 3 (8) IATA: 3 (8)

**Packing group**

ADR/RID: II IMDG: II IATA: II

**Environmental hazards**

IMDG Marine Pollutant: No

ADR/RID: No

IATA: No

**Special precautions for the user**

No data available.

## 15. Regulatory information

This safety datasheet references: the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fourth revised edition, 2011; European Commission Directive 2000/39/EC; UK Health and Safety Executive EH40/2005 Workplace Exposure Limits; and the European Chemicals Agency (ECHA) https://echa.europa.eu/.
No further safety, health and environmental regulations specific for the product in question are available.

## 16. Other information

Document Number: SD4110-R00

Approved: 02 April 2018