SDs number	Product	Issued	Expires
0018-03	Acetic anhydride	16.9.2018	16.9.2023

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**

Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: 0800 243 622 or ……0800 CHE M CA LL	**Tel** +64 9 480 4386	**FAX** +64 9 480 4385

Product	**Acetic anhydride**				**Code**	**0018-03**
CAS#	**HSNO#**	**UN #**	**DG Class/es**	**Packing group #**	**Tracking?**	**Handlers Certificate?**
108-24-7	HSR002596	1715	8 & 3	II	No	No

Recomended use: Laboratory Investigations

2. Hazards Identification

2. HAZARDS IDENTIFICATION

2.1 GHS Classification Flammable Liquids (Category C) Acute toxicity, Oral (Category D) Acute toxicity, Inhalation (Category C) Acute toxicity, Dermal (Category E) Skin corrosion (Category B) Serious eye damage (Category A) 2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s) H226 Flammable liquid and vapour. H302 Harmful if swallowed. H313 May be harmful in contact with skin. H314 Causes severe skin burns and eye damage. H331 Toxic if inhaled. - Precautionary statement(s) Prevention 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. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. 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. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response 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. P310 Immediately call a POISON CENTER/doctor. P321 Specific treatment (see

supplemental first aid instructions on this label). P363 Wash contaminated clothing before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction. Storage P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. Disposal P501 Dispose of contents/ container to an approved waste disposal plant. 2.3 Other hazards Lachrymator., Reacts violently with water.

3. COMPOSITION/INFORMATION ON INGREDIENTS Substance / Mixture : Substance 3.1 Substances Hazardous components
Acetic anhydride 100% New Zealand Classification:-3.1 C; 6.1 D; 6.1 C; 6.1 E; 8.2 B; 8.3 A; H226, H302, H331, H313, H314, H318
For the full text of the H-Statements mentioned in this Section, see Section 2

4.FIRST AID MEASURES
4.1 Description of first aid 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. Consult a physician.
In case of skin contact Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2 Most important symptoms and effects, both acute and delayed burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. 4.3 Indication of any immediate medical attention and special treatment needed No data available

5. FIREFIGHTING MEASURES
5.1 Extinguishing media Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2 Special hazards arising from the substance or mixture No data available 5.3 Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary. 5.4 Further information Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. 6.2 Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. 6.3 Methods and materials for containment and cleaning up Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). 6.4 Reference to other sections For disposal see section 13.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge. 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Reacts violently with water.
7.3 Specific end use(s) No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters ; Occupational Exposure Limits Table**

Component	CAS No	Value	Control parameters	Basis
Acetic anhydride	**108-24-7**	**WES-Ceiling**	**5ppm 21mg/m3**	**New Zealand . Workplace exposure. Standards for atmospheric Contaminants**

8.2 Exposure controls Appropriate engineering controls Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Personal protective equipment Eye/face protection Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards.

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.

Body Protection Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount 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

If the respirator is the sole means of protection, use a full-face supplied air respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties a) Appearance Form: liquid Colour: colourless b) Odour pungent c) Odour Threshold No data available d) pH No data available e) Melting point/freezing point Melting point/range: -73 °C f) Initial boiling point and boiling range 138 - 140 °C g) Flash point 49 °C - closed cup h) Evaporation rate No data available i) Flammability (solid, gas) No data available j) Upper/lower flammability or explosive limits Upper explosion limit: 10.3 %(V) Lower explosion limit: 2.7 %(V) k) Vapour pressure 5 hPa at 20 °C 13 hPa at 36 °C 6.69 hPa l) Vapour density 3.52 - (Air = 1.0) m) Relative density 1.08 g/mL n) Water solubility slightly soluble o) Partition coefficient: noctanol/water log Pow: ca.-0.27 p) Auto-ignition temperature 316 °C q) Decomposition temperature No data available r) Viscosity No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity No data available 10.2 Chemical stability No data available 10.3 Possibility of hazardous reactions No data available 10.4 Conditions to avoid Do not allow water to enter container because of violent reaction. Heat, flames and sparks. 10.5 Incompatible materials acids, Alcohols, Bases, Oxidizing agents, Reducing agents, Powdered metals 10.6 Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION 11.1 Information on toxicological effects Acute toxicity Skin corrosion/irritation Serious eye damage/eye irritation Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure Aspiration hazard Potential health effects Inhalation May be fatal if inhaled. Material is extremely

destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion Harmful if swallowed. Causes burns. Skin May be harmful if absorbed through skin. Causes skin burns. Eyes Causes eye burns. Signs and Symptoms of Exposure burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Additional Information RTECS: AK1925000

12. ECOLOGICAL INFORMATION
12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.4 Mobility in soil 12.5 Results of PBT and vPvB assessment No data available 12.6 Other adverse effects

13. DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging Dispose of as unused product.

14. TRANSPORT INFORMATION
Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	**UN Number**	**1715**	**1715**	**1715**
14.2	**UN Proper Shipping name**	**Acetic anhydride**		
14.3	**Transport Hazard Class**	**8 (3)**	**8 (3)**	**8 (3)**
14.4	**Packaging group**	**II**	**II**	**II**
14.5	**Environmental Hazards**	**No**	**No**	**No**

15. REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information HSNO Group Standard Approval: HSR002596 –
Tracking not required
Handler Cert.: not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third

party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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