



Section 1 - Identification of Chemical Product and Company

Chemical Nature: Liquid Fertiliser
Trade Name: e-Flow Kope
Product Use: Liquid Fertiliser (soil nutrient)
Supplier: Barmac (a Division of Amgrow Pty Ltd)
Unit B2a, 3-29 Birnie Avenue
Lidcombe NSW 2141
Phone: (02) 9395 1200 (Office hours), Fax: (02) 9395 1241
www.amgrow.com.au

This Revision: January 2017 (valid for 5 years from this date)

Section 2 - Hazards Identification

Statement of Hazardous Nature

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SWA
NOT A DANGEROUS GOOD ACCORDING TO THE ADG CODE, IATA OR IMDG/IMSBC CRITERIA

Risk Phrases: Not Hazardous - No criteria found.

Safety Phrases: Not Hazardous - No criteria found.

SUSMP Classification: Not scheduled

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

UN Number: None allocated

GHS Signal word: NONE. Not hazardous.

PREVENTION

P102: Keep out of reach of children.

P262: Do not get in eyes, on skin, or on clothing.

P281: Use personal protective equipment as required.

RESPONSE

P353: Rinse skin or shower with water.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

STORAGE

P402+P404: Store in a dry place. Store in a closed container.

DISPOSAL

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Emergency Overview

Physical Description & colour: Clear to opaque liquid

Odour: Slight odour

Major Health Hazards: No significant risk factors have been found for this product in normal use.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc (%)
Citric Acid	77-92-9	
Potassium Carbonate	584-08-7	100
Water	7732-18-5	

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

Section 4 - First Aid Measures

General Information: You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia and is available at all times. Have this MSDS with you when you call.

Inhalation: If symptoms are experienced, remove victim to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Remove contaminated clothing and wash thoroughly with soap and water. Seek medical attention if irritation develops. Launder clothing before reuse.

Eye Contact: Hold eye open and flush gently with copious amounts of water for 15 minutes. Seek medical attention if irritation develops.

Ingestion: If swallowed, immediately rinse mouth out with water. Give water. Contact Poisons Information Centre or doctor. Do not induce vomiting.

Advice to Doctor: Treat symptomatically

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: Non-flammable. No fire or explosion hazards exist.

Decomposition products: May evolve toxic or irritating fumes when heated to decomposition

Extinguishing Media: Media to suit materials involved in fire.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Non Flammable

Upper Flammability Limit: Not applicable

Lower Flammability Limit: Not applicable

Auto ignition temperature: Not applicable

Flammability Class: Does not burn.

Hazchem Code: None allocated

Section 6 - Accidental Release Measures

Spillage: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other absorbent material. Sweep up and shovel or collect recovered product into labelled containers for recycling or salvage, and dispose of promptly. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill.

Section 7 - Handling and Storage

Handling: Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

Storage: Store in cool, dry, well ventilated area removed from combustible materials, herbicides, fungicides and foodstuffs. Ensure containers are labelled, protected from physical damage and sealed when not in use. Keep from extreme heat and open flames and make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10.

Section 8 - Exposure Controls and Personal Protection

Exposure Limits **TWA (mg/m³P3P)** **STEL (mg/m³P3P)** **ADI (mg/Kg/day)** **NOEL (mg/Kg/day)**

Exposure limits have not been set by SWA for any ingredients in product. The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. There is a blanket limit of 10mg/m³ for dusts or mists when limits have not otherwise been established. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, 31st March 2012

Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: Avoid high mist concentration and provide local exhaust ventilation where necessary.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when using this product.

Skin Protection: Wear gloves or gauntlets and long sleeves when using this product to protect against skin irritation

Respirator: Use P2 type canister respirator where high concentrations of airborne mist is present
Provision of eye wash facilities and safety shower recommended.

Wash hands before eating, drinking, smoking or going to toilet, launder protective clothing before re-use.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Clear to opaque liquid
Odour:	Slight odour.
Boiling Point:	>100 °C
Freezing/Melting Point:	0°C
Volatiles:	No specific data. Expected to be low at 100°C.
Vapour Pressure:	Negligible at normal ambient temperatures.
Vapour Density:	Not applicable.
Specific Gravity:	1.0-1.1.
Water Solubility:	Soluble (Miscible)
pH:	no data
Volatility:	Negligible at normal ambient temperatures.
Odour Threshold:	No data.
Auto ignition temp:	Not applicable - does not burn

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions.

Conditions to Avoid: Heat, flames.

Incompatibilities: Strong alkalis

Fire Decomposition Products: May be toxic

Polymerisation: This product is unlikely to undergo polymerisation processes.

Section 11 - Toxicological Information

Health Hazard Summary: Low toxicity. This product may only present a hazard with eye contact, prolonged and repeated skin contact or with ingestion of large quantities

Toxicity to Animals:

No Data

Potential Health Effects

Inhalation: If product in high concentrations of airborne mist, prolonged contact may cause irritation to the nose and throat.

Skin Contact: May cause irritation. Some individuals with sensitive skin may experience adverse skin reactions and would be advised to discontinue use.

Eye Contact: Exposure may result in irritation, pain and redness

Ingestion: May cause digestive tract irritation, with accompanying nausea, vomiting and diarrhoea if consumed in large quantities

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

Classification of Hazardous Ingredients

Ingredient

Risk Phrases

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

Section 12 - Ecological Information

Environment: Avoid contamination of waterways.

Persistence/degradation: Will persist for weeks in soil, but is a plant nutrient.

Mobility: Readily leaches

Bioaccumulative potential: Unknown but probably low.

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 <http://www.chemclear.com.au/> and for help with the disposal of empty drums, contact DrumMuster <http://www.drummuster.com.au/>

Section 14 - Transport Information

ADG Code: This product is not classified as a Dangerous Good for transport by road or rail.

IMDG/IATA: Not a Dangerous Good for transport by sea or air

Section 15 - Regulatory Information

Poison Schedule: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

AICS: All of the significant ingredients in this formulation are to be found in the public AICS Database.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail	IMDG	International Maritime Dangerous Good
AICS	Australian Inventory of Chemical Substances	IMSBC	International Maritime Solid Bulk Code
CAS number	Chemical Abstracts Service Registry Number	NTP	National Toxicology Program (USA)
Hazchem Number	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters	SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
IARC	International Agency for Research on Cancer	SWA	Safe Work Australia (formerly ASCC and NOHSC)
IATA	International Air Transport Authority	UN Number	United Nations Number

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST

Please read all labels carefully before using product. This MSDS is prepared in accord with the SWA document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]
Copyright © Amgrow Pty Ltd January 2017