



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	KEMTEC 4244 COLLECTOR
CHEMICAL FAMILY:	Formulated Dithiophosphate salt in water
SYNONYMS:	None
MOLECULAR FORMULA:	Mixture
MOLECULAR WEIGHT:	Mixture
MANUFACTURER:	Kemtec Pty Ltd • 131/15 Hall St • Port Melbourne • VIC 3207
PRODUCT INFORMATION:	Tel: +61 3 9646 3833 • Fax: +61 3 9646 3933
EMERGENCY PHONE:	INFOSAFE • Australia: 1800 638 556 (all hours)
ISSUE DATE:	March 6, 2015

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA REGULATED COMPONENTS

COMPONENT	CAS No.	% (w/w)	OSHA (PEL)	ACGIH (TLV)	Carcinogen
Sodium di isobutyl dithiophosphate	53378-51-1	21-35	Not established	-	-
Isopropyl ethyl thionocarbamate	141-98-0	30			
Isopropanol	67-63-0	0-5%	400 ppm	200 ppm (STEL)	NO

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR

Color:	Amber to dark, clear
Appearance:	Liquid
Odor:	Slight sulfur odor

STATEMENT OF HAZARD

DANGER! CAUSES EYE BURNS AND SKIN IRRITATION

POTENTIAL HEALTH EFFECTS

EFFECTS / ROUTES OF EXPOSURE

Acute oral (rat) and dermal (rabbit) LD₅₀ values are 3.54 g/kg and 1.13 g/kg, respectively. The 4-hour LC₅₀ (rat) value is estimated to be > 20 mg/L. Direct contact with this material may cause severe eye and skin irritation. Contact with acid may cause liberation of hydrogen sulfide. Hydrogen sulfide has a strong rotten-egg odor, however, some people are unable to smell the gas and exposure will deaden the sense of smell. Therefore, odor is an unreliable indicator of exposure. Overexposure to hydrogen sulfide gas may cause severe eye or respiratory tract irritation, rapid development of coma and respiratory failure. Low levels of hydrogen sulfide may cause headache, dizziness, staggering gait, neurological damage and gastritis. Direct contact with this material may cause mild eye and skin irritation. This material was weakly sensitizing to the skin of guinea pigs. Refer to Section 11 for toxicology information on the regulated components of this product.



4. FIRST AID MEASURES

INGESTION:	If swallowed, call a physician immediately. ONLY induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.
SKIN CONTACT:	In case of skin contact, remove contaminated clothing without delay. Wear impervious gloves. Cleanse skin thoroughly with soap and water. Do not omit cleaning hair or under fingernails if contaminated. Do not reuse clothing without laundering. Do not reuse contaminated leatherware.
EYES CONTACT:	In case of eye contact, immediately irrigate with plenty of water for 15 minutes. Obtain medical attention without delay.
INHALATION:	If vapor or dust of this material is inhaled, remove from exposure. Administer oxygen if there is difficulty in breathing. Obtain medical attention immediately if necessary.

5. FIREFIGHTING MEASURES.

EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTIONS

Extinguishing Media:	Use water, carbon dioxide or dry chemical to extinguish fires.
Protective Equipment:	Wear self-contained, positive-pressure breathing apparatus and full firefighting protective clothing. See Section 8 (Exposure Controls/Personal Protection) for special protective clothing.
Special Hazards:	Sulfur dioxide or oxides of phosphorus may be formed under fire conditions. Do not flush to sewer which may contain acid. This could result in generation of toxic and explosive hydrogen sulfide gas.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Where exposure level is known, wear approved respirator suitable for level of exposure. Where exposure level is not known, wear approved, positive pressure, self-contained respirator. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.
METHODS FOR CLEAN UP:	Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush area with water.
ENVIRONMENTAL PRECAUTIONS:	Dispose of in accordance with EPA rules and regulations.

7. HANDLING AND STORAGE

HANDLING

Precautionary Measures :	Do not get in eyes, on skin, on clothing. Keep away from heat and flame. Wash thoroughly after handling.
Special Handling Statements :	Mixing with acids or aqueous solutions containing acids could result in release of toxic and explosive hydrogen sulfide gas.

STORAGE

Dispose of according to applicable environmental regulations.

Storage

Temperature: **Reason:**



8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING MEASURES

Mechanical ventilation may be necessary if working with the product in enclosed areas or at elevated temperatures. Utilize a closed system process when available. If not available, provide adequate ventilation.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: For operations where inhalation exposure can occur, use an approved respirator recommended by an industrial hygienist after an evaluation of the operation. Where inhalation exposure cannot occur, no respiratory protection is required. A full face piece respirator also provides eye and face protection, is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

EYES: When contact with product is possible, use face shield. Otherwise use safety glasses with side shields or goggles.

SKIN: Use full protective clothing, chemical boots, and chemical gloves to prevent contact with skin.

ADDITIONAL ADVICE:

Food, beverage and tobacco products should not be carried, stored or consumed where this material is used. Before eating, drinking, or smoking, wash face and hands with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Amber to dark brown, clear, liquid; slight sulfur odor
BOILING POINT:	Not available
MELTING POINT:	Not available
VAPOR DENSITY:	Similar to water
VAPOR PRESSURE:	Similar to water at 25°C
SPECIFIC GRAVITY:	~1.07 @ 20°C
% VOLATILE (BY WT.):	<50 (water)
pH:	Not applicable
SATURATION IN AIR (% by Vol):	Similar to water
EVAPORATION RATE:	Similar to water
SOLUBILITY IN WATER:	Slight
VOLATILE ORGANIC CONTENT:	Not available
FLASH POINT:	>200°F; (93°C), Setaflash Closed Cup
FLAMMABLE LIMITS (% BY VOL.):	Not available
AUTOIGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
PARTIAL COEFFICIENT (n-octanol/water):	Not available
ODOR TRESHOLD:	See Section 2 for exposure limits

10. STABILITY AND REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	None known
POLYMERIZATION:	Will not occur
CONDITIONS TO AVOID:	None known
MATERIALS TO AVOID:	Strong acids and/or oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon dioxide, carbon monoxide; oxides of sulfur (includes sulfur di and tri oxides), oxides of phosphorus



11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under SECTION 3: HAZARDS IDENTIFICATION

Toxicological information on the regulated components of this product is as follows:

Isopropylethyl thionocarbamate (IPETC) has acute oral (rat) and dermal (rabbit) LD₅₀ values of 2324 mg/kg and >2000 mg/kg, respectively. This material causes mild eye and minimal skin irritation in studies with rabbits. Material tested positive (Guinea pig) for skin sensitization. This material is not expected to be an Ames mutagen based on SAR analysis.

Sodium di isobutyl dithiophosphate has estimated acute oral (rat) and dermal (rabbit) LD₅₀ values of greater than 5000 mg/kg and 2000 mg/kg, respectively. Direct contact with sodium diisoamyl dithiophosphate can cause eye burns and skin corrosion.

Isopropanol: Oral rat LD₅₀: 5045 mg/kg; skin rabbit LD₅₀: 12.8 gm/kg; inhalation rat LC₅₀: 16,000 ppm/8-hour; investigated as a tumorigen, mutagen, reproductive effector

12. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This material is not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

RECOMMENDATIONS FOR THE PRODUCT: In accordance with regulations for special waste, product must be taken, after pretreatment, to an authorized special waste incineration plant.

RECOMMENDATIONS FOR PACKAGING: Packaging that cannot be cleaned should be disposed of like the product.

RECOMMENDED CLEANSING AGENT: Water

14. Transportation Information

	D.O.T. Shipping Information			IMO Shipping Information
SHIPPING NAME:	CORROSIVE LIQUID,BASIC,ORGANIC, N.O.S.			CORROSIVE LIQUID,BASIC,ORGANIC, N.O.S.
HAZARD CLASS	8			8
PACKING GROUP:	II			II
UN/ID NUMBER:	3267			3267
IMDG PAGE:	Not Applicable			-
DOT HAZARDOUS SUBSTANCE:	Not Applicable			Not Applicable
TRANSPORT LABEL REQUIRED:	CORROSIVE			CORROSIVE
	ICAO/IATA			Transport Canada
SHIPPING NAME:	CORROSIVE LIQUID,BASIC,ORGANIC, N.O.S.			CORROSIVE LIQUID,BASIC,ORGANIC, N.O.S.
HAZARD CLASS:	8			8
SUBSIDIARY CLASS:	Not Applicable			-
UN/ID NUMBER:	3267			3267
PACKING GROUP:	II			II
TRANSPORT LABEL REQUIRED:	CORROSIVE			CORROSIVE
PACKING INSTRUCTIONS/ MAXIMUM NET QUANTITY:	PASSENGER	809	1L	Not applicable
	CARGO	813	30L	

ADDITIONAL TRANSPORTATION INFORMATION

Technical Name (N.O.S.): (contains dithiophosphate salt)



15. REGULATORY INFORMATION

INVENTORY INFORMATION

United States (USA)	This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.
Canada	This product contains components not on the Domestic Substances List. These components have been reported in accordance with subsection 26 of the Canadian Environment Protection Act.
Australia:	All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS
European Union (EU)	Product is not included in the European Inventory of Existing Chemical Substances (EINECS). The product can be supplied in quantities less than 10 kg/year according to Council Directive 67/548/EEC and its amendments.

OTHER ENVIRONMENTAL INFORMATION

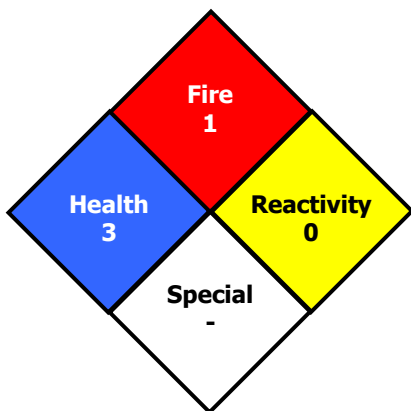
The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

Component	CAS NO.	% (w/w)	TPQ (lbs)	RQ (lbs)	S313	TSCA 12B
This product does not contain any components regulated under these sections of the EPA						

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA

ACUTE (Y)	CHRONIC (N)	FIRE (N)	REACTIVE (N)	PRESSURE (N)
-----------	-------------	----------	--------------	--------------

16. OTHER INFORMATION



NFPA HAZARD RATING (National Fire Protection Association)

HEALTH - 3 -	Materials that, under emergency conditions, can cause serious or permanent injury.
FIRE - 1 -	Materials that must be preheated before ignition can occur.
REACTIVITY - 0 -	Materials which in themselves are normally stable, even under fire exposure conditions.

REASON FOR REVISION: Updated UN number and emergency contact details

Prepared By: Kenneth Lee

Revised By: Nicole Watt

IMPORTANT: The above information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warrant, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular uses.