MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	**Kemtec F130-06 Frother**
CHEMICAL FAMILY:	Mixture
SYNONYMS:	FX130-06
MOLECULAR FORMULA:	Mixture
MOLECULAR WEIGHT:	Mixture
MANUFACTURER:	Kemtec Pty Ltd, Suite 131/15 Hall St, Port Melbourne VIC 3207
PRODUCT INFORMATION:	Tel: +613 9646 3833 • Fax: +613 9646 3933
EMERGENCY PHONE:	INFOSAFE 1800 638 556 (all hours)
ISSUE DATE:	November 30, 2014

2. COMPOSITION/INFORMATION ON INGREDIENTS

OSHA REGULATED COMPONENTS

COMPONENT	CAS No.	% (w/w)	OSHA (PEL)	ACGIH (TLV)	Carcinogen
2-methylbutan-1-ol	137-32-6	70.0 – 100.0%			
pentan-1-ol	71-41-0	0.0 – 30.0%			
nonane, 4-methyl-	17301-94-9	0.0 – 4.0%			
3-methylbutan-1-ol	123-51-3	0.0 – 5.0%			

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR

Color: Clear, colorless
Appearance: Liquid
Odor: Alcohol like odor

STATEMENT OF HAZARD

WARNING! Combustible liquid, harmful if swallowed. Causes eye, skin and respiratory tract irritation. Prolonged or repeated contact may result in dermatitis. RISK OF SERIOUS DAMAGE TO EYES. INGESTION MAY CAUSE GASTRIC DISTURBANCES. Avoid contact with the skin, eyes, and clothing. Avoid inhalation of mists/vapors. Use with local exhaust ventilation. Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Wear NIOSH-certified chemical goggles. Wear full face shield if splashing hazard exists. Wear chemical resistant protective gloves. Wear protective clothing. Eye wash fountains and safety showers must be easily accessible.

POTENTIAL HEALTH EFFECTS

EFFECTS / ROUTES OF EXPOSURE

Routes of entry for solids and liquids include eye and skin contact, ingestion, and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity:
Ingestion may cause gastrointestinal disturbances. Of moderate toxicity after short-term inhalation. Of low toxicity after single ingestion. Of low toxicity after short-term skin contact. The product has not been tested. The statement has been derived from the properties of the individual components. Skin contact causes irritation. May cause severe damage to the eyes.

Chronic Toxicity:

Repeated Dose Toxicity: No known chronic effects.

Genotoxicity: No data available concerning mutagenic effects. The chemical structure does not suggest a specific alert for such an effect.

Medical conditions aggravated by overexposure:
Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product. See MSDS Section 11 – Toxicological information.

Potential environmental effects

Aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

4. FIRST AID MEASURES

GENERAL ADVICE:	Remove contaminated clothing.
INGESTION:	Rinse mouth and then drink plenty of water. Induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.
SKIN CONTACT:	Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.
EYE CONTACT:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.
INHALATON:	Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

5. FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT:	42.5°C	(DIN 51755, closed cup)
FLAMMABILITY:	Flammable	(other)
FLAMMABLE LIMITS IN AIR % BY VOLUME:	Lower: 1.2% (V) Upper: 10.3% (V)	(37°C) (air) (74.5°C) (air)
AUTOIGNITION TEMP:	340°C	(DIN 51794)

EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTIONS

Extinguishing Media
Water spray, alcohol-resistant foam, dry powder, carbon dioxide

Protective Equipment
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Special Hazards
No particular hazards known during fire-fighting.

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
Breathing protection required.

METHODS FOR CLEAN UP
Spill should b e contained, solidified, and placed in suitable containers for disposal.

ENVIRONMENTAL PRECAUTIONS
Substance/product is RCRA hazardous due to its properties.

7. HANDLING AND STORAGE

HANDLING

Precautionary Measures

Containers should be opened carefully in well-ventilated areas to avoid static discharge.

Special Handling Statements

No explosion proofing necessary.

STORAGE

Keep away from sources of ignition – No Smoking. Keep container tightly closed and dry; store in a cool place.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

3-methylbutan-1-ol	OSHA	PEL	100 ppm	360 mg/m3;		
	ACGIH	TWA value	100 ppm;	STEL value	125 ppm;	

Advice on system design:

Provide local exhaust ventilation to control vapors/mists.

PERSONAL PROTECTIVE EQUIPMENT

EYES:	Wear tightly fitting safety goggles (chemical goggles)
SKIN:	Wear light protective clothing and chemical resistant protective gloves. Consult with glove manufacturer for testing data.
RESPIRATORY PROTECTION:	Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions. Observe OSHA regulations for respirator use (29 CFR 1910.134).
General safety and hygiene measures:	No special measures necessary if stored and handled correctly. Wear protective clothing as necessary to prevent contact. Avoid inhalation of vapors/mists. Wash soiled clothing immediately.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARNCE AND ODOR:	Colorless liquid, alcohol-like odor
BOILING RANGE:	128 – 131ºC (DIN 51751)
Information on: pentan-1-ol **Boiling point:**	138ºC (1,013.25 hPa) (other)
Information on: 2-methylbutan-1-ol **Boiling point:**	128ºC (1,013.25 hPa) (measured)
MELTING POINT:	< -70ºC (other) Literature data
VAPOR PRESSURE:	4.3 mbar @ 20ºC 27.4 mbar @ 50ºC
SPECIFIC GRAVITY:	Not available
DENSITY:	0.819 g/cm3 @ 20ºC (DIN 51757)
% VOLATILE (BY WT.):	Not available
pH:	Approx.. 7
SATURATION IN AIR (% by Vol):	Not available
EVAPORATION RATE:	Not available
SOLUBILITY IN WATER:	Not available
VOLATILE ORGANIC CONTENT:	Not available
FLASH POINT:	42.5ºC
FLAMMABLE LIMITS IN AIR % BY VOLUME:	Not available
AUTOIGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
PARTIAL COEFFICIENT (n-octanol/water):	1.26 @ 25ºC (other)
n-octanol/water (logPow):	
Viscosity, dynamic:	5.505 mPa.s @19.3ºC Literature data
Solubility in water:	Approx.. 28 g/l @ 20ºC Literature data

10. STABILITY AND REACTIVITY

HAZARDOUS REACTIONS:	The product is chemically stable.
CORROSION TO METALS:	No corrosive effect on metal.
OXIDIZING PROPERTIES:	Based on its structural properties, the product is not classified as oxidizing. (other)
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity
Inhalation:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 2-methylbutan-1-ol
Species: rat
Value: (IRT)
Exposure time: 7 hr
No mortality within the stated exposition time as shown in animal studies.

Information on: pentan-1-ol
Species: rat
Value: (IRT)
Exposure time: 8 hr
No mortality within the stated exposition time as shown in animal studies. The European Union (EU) has classified this substance as "harmful".

Irritation/corrosion
Skin:

Species: rabbit
Result: Irritant
Method: Draize test
The product has not been tested. The statement has been derived from the properties of the individual components.

Eye:
Species: rabbit
Result: Risk of serious damage to eyes.
Method: Draize test
The product has not been tested. The statement has been derived from the properties of the individual components.

12. ECOLOGICAL INFORMATION

Fish
Acute:
DIN 38412 Part 15 Leuciscus idus/LC_{50}: 479 mg/l
Nominal concentration.

Degradability/Persistence
Biological/Abiological Degradation

Test Method:	OECD 301F; ISO 9408; 92/69/EEC, C.4-D (aerobic), activated sludge, domestic
Method of analysis:	BOD of COD
Degree of elimination:	84% (27 d)
Evaluation:	Biodegradable. Readily biodegradable (according to OECD criteria).

Bioaccumulation
No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Other adverse effects:
Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

13. DISPOSAL CONSIDERATIONS

RECOMMENDATIONS FOR THE PRODUCT:	Dispose of in a RCRA-licensed facility. Do not discharge into waterways or sewer systems without proper authorization. Dispose of in accordance with national, state, and local regulations.
RECOMMENDATIONS FOR PACKAGING:	Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. If containers are not empty, they must be disposed of in a RCRA-licensed facility.
RCRA:	D001

14. Transportation Information

	D.O.T. Shipping Information (Land Transport)	**IMDG Shipping Information (Sea Transport)**
SHIPPING NAME:	PENTANOLS (Contains 2-methylbutan-1-ol)	PENTANOLS (Contains 2-methylbutan-1-ol)
HAZARD CLASS	3	3
PACKING GROUP:	III	III
UN/ID NUMBER:	UN1105	UN1105
HAZARD LABEL:	3	3
MARINE POLLUTANT:	Not applicable	No
	ICAO/IATA (Air Transport)	
SHIPPING NAME:	PENTANOLS (Contains 2-methylbutan-1-ol)	
HAZARD CLASS:	3	
PACKING GROUP:	III	
UN/ID NUMBER:	UN1105	
HAZARD LABEL:	3	

15. REGULATORY INFORMATION

Federal Regulations

Registration status:

Chemical TSCA, US released/listed

OSHA hazard category:

Skin and/or eye irritant; Combustible liquid; OSHA PEL established

EPCRA 311/312 (Hazard categories):

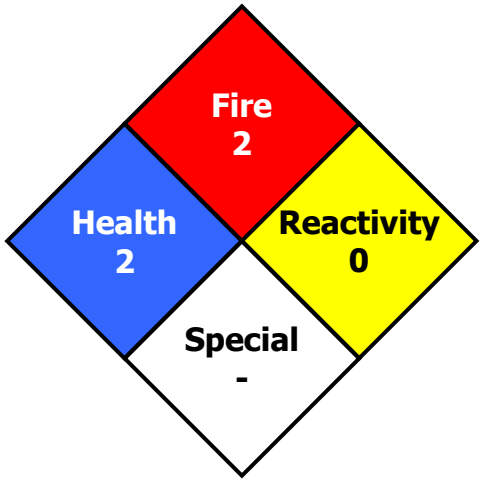
Acute; Fire

CERCLA RQ	CAS Number	Chemical Name
100 lbs	71-41-0	pentan-1-ol

State Regulations

State RTK	CAS Number	Chemical Name
MA	137-32-6	2-methylbutan-1-ol
MA, NJ, PA	71-41-0	pentan-1-ol
MA, NJ, PA	123-51-3	3-methylbutan-1-ol

16. OTHER INFORMATION



NFPA HAZARD RATING
(National Fire Protection Association)

FIRE:	Materials that must be moderately heated or exposed to relatively high ambient temperature before ignition can occur.
HEALTH:	Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
REACTIVITY:	Materials that in themselves are normally stable, even under fire exposure conditions.

HMIS III RATING

Flammability: 2 **Health: 2** **Physical Hazard: 0**

REASON FOR REVISION: Change of Emergency Contact Information

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