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SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

Product identifier

Product No.:	Product name:	Common name(s), synonym(s)
212516	Bottle Tb Methylene Blue 250Ml	No data available

Recommended use of the chemical and restrictions on use

Recommended use: Laboratory Chemicals
Recommended restrictions: None known.

Supplier's details

Supplier

Company Name:	Becton Dickinson Ltd.
Address:	14B George Bourke Drive Mt Wellington, Auckland, 1060
Telephone:	0800 572 468
Fax:	
Contact Person:	Customer Service
E-mail:	bd_anz@bd.com

Emergency telephone number: ChemTrec New Zealand: +(64)-98010034

2. Hazard(s) identification

GHS classification

Physical Hazards

Flammable liquids	Category 3

Health Hazards

Serious Eye Damage/Eye Irritation	Category 2
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 1
Specific Target Organ Toxicity - Repeated Exposure	Category 2

Label Elements

Pictograms:

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Signal Word: Warning

Hazard Statement: Flammable liquid and vapor.
Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.
Causes damage to organs.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Call a POISON CENTER/doctor. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

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Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Ethanol	No data available.	64-17-5	15 - 40%
Methanol	No data available.	67-56-1	1 - 5%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information: Get medical attention if symptoms occur.

Inhalation: Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.

Skin Contact: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.

Ingestion: Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Personal Protection for First-aid Responders: No data available.

Most important symptoms and effects, both acute and delayed

Symptoms: Symptoms may be delayed.

Hazards: Causes damage to organs. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Indication of immediate medical attention and special treatment needed

Treatment: IF exposed or concerned: Get medical advice/attention.

5. Fire-fighting measures

General Fire Hazards: Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Use water spray to keep fire-exposed containers cool. In case of fire: Evacuate area.

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Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Not applicable
Special hazards arising from the substance or mixture:	Fire or excessive heat may produce hazardous decomposition products.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:	May travel considerable distance to source of ignition and flash back.May explode when heated or when exposed to flames or sparks.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Contact local authorities in case of spillage to drain/aquatic environment. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	All equipment used when handling the product must be grounded. Eliminate sources of ignition. Prevent spreading of vapors through sewers, ventilation systems and confined areas. Absorb spillage with suitable absorbent material. Prevent runoff from entering drains, sewers, or streams. See Section 8 of the SDS for Personal Protective Equipment. For waste disposal, see section 13 of the SDS.
Environmental Precautions:	Avoid release to the environment.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	Use explosion-proof ventilation equipment. Adequate ventilation should be provided so that exposure limits are not exceeded.
Safe handling advice:	When using do not eat, drink or smoke. Read and follow manufacturer's recommendations. Use personal protective equipment as required. Use spark-proof tools and explosion-proof equipment.

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Contact avoidance measures: No data available.

Storage

Safe storage conditions: Keep container tightly closed. Keep in a cool, ventilated location far from heat source and flame

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Ethanol	TWA	1,000 ppm	1,880 mg/m3	New Zealand. WES. (Workplace Exposure Standards), as amended (09 2010)
Methanol	STEL	250 ppm	328 mg/m3	New Zealand. WES. (Workplace Exposure Standards), as amended (09 2010)
	TWA	200 ppm	262 mg/m3	New Zealand. WES. (Workplace Exposure Standards), as amended (09 2010)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

Chemical name	Parameters / Sampling Time	Exposure Limit Values	Source
Methanol	Methyl alcoholSampling time: End of shift.	15 mg/l (Urine)	NZ BEI (07 2011)
Methanol	Methyl alcoholSampling time: End of shift.	15 mg/l (Urine)	NZ BEI (07 2011)

Appropriate Engineering Controls: Use explosion-proof ventilation equipment. Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

General information: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

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Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Chemical resistant gloves Suitable gloves can be recommended by the glove supplier. Wash hands after contact.
Other:	Wear a lab coat or similar protective clothing.
Respiratory Protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Hygiene measures:	Observe good industrial hygiene practices.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	According to product specification.
Odor:	Characteristic
Odor Threshold:	No data available.
Freezing point:	No data available.
Boiling Point:	172 °F/78 °C
Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	84 °F/29 °C
Self Ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
pH:	No data available.
Viscosity	
Dynamic viscosity:	Not determined.
Kinematic viscosity:	Not determined.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Completely Soluble
Solubility (other):	Water.: No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.

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Density:	No data available.
Bulk density:	No data available.
Relative vapor density:	No data available.

Particle characteristics

Particle Size:	No data available.
Particle Size Distribution:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Shape:	No data available.
Crystallinity:	No data available.
Surface treatment:	No data available.

Other information

Metal Corrosion:	Non-corrosive per US Department of Transportation testing protocol.

10. Stability and reactivity

Reactivity:	Material is stable under normal conditions.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Stable
Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight. Flammable/combustible - Keep away from oxidizers, heat and flames. Keep away from sources of ignition - No smoking.
Incompatible Materials:	Water reactive material.
Hazardous Decomposition Products:	Stable; however, may decompose if heated.

11. Toxicological information

General information: Prolonged exposure to the preparation may cause serious health effects.

Information on toxicological effects

Inhalation: Limited inhalation hazard at normal work temperatures.

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Skin Contact:	Negligible irritation to skin at ambient temperatures.
Eye contact:	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs. Irritating to eyes.
Ingestion:	No data available.

Information on likely routes of exposure

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix: 6,666.67 mg/kg Not classified for acute toxicity based on available data.
Components:	
Ethanol	No data available.
Methanol	LD 50 (Pig): 5,000 mg/kg

Dermal

Product:	ATEmix: 20,000 mg/kg Not classified for acute toxicity based on available data.
Components:	
Ethanol	LD 50 (Rabbit): 17,100 mg/kg
Methanol	LD 50 (Rabbit): 17,100 mg/kg

Inhalation

Product:	ATEmix: 200 mg/l Vapour; ATEmix: 34 mg/l Dusts, mists and fumes; Not classified for acute toxicity based on available data.
Components:	
Ethanol	LC 50 (Rat, 4 h): 117 - 125 mg/l 2 = reliable with restrictions;
Methanol	No data available.

Repeated dose toxicity

Product:	No data available.
Components:	
Ethanol	No data available.
Methanol	NOAEL (Mouse(Female, Male), Inhalation, 7,202 - 7,373 h): 0.13 mg/l Experimental result, Weight of Evidence study Inhalation NOAEL (Rat(Male), Inhalation, 1 - 6 Weeks): 2.65 mg/l Experimental result, Supporting study Inhalation NOAEL (Rat(Male), Inhalation): 1.06 mg/l Experimental result, Supporting study Inhalation NOAEL (Rat(Female, Male), Inhalation, 7,318 - 7,496 h): 0.13 mg/l Experimental result, Weight of Evidence study Inhalation LOAEL (Rat(Female, Male), Inhalation, 7,318 - 7,496 h): 1.3 mg/l Experimental result, Weight of Evidence study Inhalation

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Skin Corrosion/Irritation

Product:	No data available.
Components:	
Ethanol	
Methanol	No data available.

Serious Eye Damage/Eye Irritation

Product:	Irritating to eyes.
Components:	
Ethanol	No data available.
Methanol	No data available.

Respiratory or Skin Sensitization

Product:	No data available.
Components:	
Ethanol	Based on available data, the classification criteria are not met. Skin sensitization:, in vivo (Guinea pig): Non sensitising
Methanol	Skin sensitization:, in vivo (Guinea pig): Non sensitising

Carcinogenicity

Product:	No data available.
Components:	
Ethanol	Based on available data, the classification criteria are not met.
Methanol	No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogens present or none present in regulated quantities
No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product:	No data available.
Components:	
Ethanol	Based on available data, the classification criteria are not met.
Methanol	No data available.

In vivo

Product:	No data available.
Components:	
Ethanol	Based on available data, the classification criteria are not met.
Methanol	No data available.

Reproductive toxicity

Product:	No data available.
Components:	
Ethanol	Based on available data, the classification criteria are not met.
Methanol	No data available.

Specific Target Organ Toxicity - Single Exposure

Product:	No data available.
Components:	

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Ethanol	Based on available data, the classification criteria are not met.
Methanol	Oral: Nervous System - Causes damage to organs.

Specific Target Organ Toxicity - Repeated Exposure

Product:	No data available.
Components:	
Ethanol	Based on available data, the classification criteria are not met.
Methanol	No data available.

Aspiration Hazard

Product:	No data available.
Components:	
Ethanol	No data available.
Methanol	No data available.

Information on health hazards

Other hazards

Product:	No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data on possible environmental effects have been found.
Components:	
Ethanol	LC 50 (Fathead Minnow, 96 h): 14,200 mg/l LC 50 (Fathead Minnow, 96 h): 15,300 mg/l LC 50 (Oncorhynchus mykiss, 24 h): 11,200 mg/l Experimental result, Supporting study
Methanol	LC 50 (Pimephales promelas, 96 h): 29,400 mg/l EC 50 (Pimephales promelas, 96 h): 28,900 mg/l Experimental result, Supporting study LC 50 (Pimephales promelas, 48 h): 28,400 mg/l Experimental result, Supporting study LC 50 (Pimephales promelas, 96 h): 28,100 mg/l Experimental result, Supporting study LC 50 (Trachinotus carolinus, 24 h): 10,112 mg/l Experimental result, Supporting study

Aquatic Invertebrates

Product:	No data on possible environmental effects have been found.
Components:	
Ethanol	LC 50 (Water flea (Ceriodaphnia dubia), 48 h): 5,012 mg/l LC 50 (Grass shrimp,freshwater prawn (Palaemonetes kadiakensis), 18 h): 10,100 mg/l LC 50 (Grass shrimp,freshwater prawn (Palaemonetes kadiakensis), 96 h): > 250 mg/l Mortality
Methanol	No data available.

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Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Ethanol	EC 50 (Green algae (Chlorella vulgaris), 72 h): 275 mg/l
Methanol	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Ethanol	LC 50 (Turbellarian, flatworm (Dugesia tigrina), 96 h): > 100 mg/l Mortality
Methanol	LC 50 (Turbellarian, flatworm (Dugesia tigrina), 96 h): > 100 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Components:	
Ethanol	No data available.
Methanol	No data available.

Aquatic Invertebrates

Product:	No data available.
Components:	
Ethanol	EC10 (Water flea (Daphnia magna), 10 d): 454 mg/l NOEC (Water flea (Daphnia magna), 10 d): 9.6 mg/l
Methanol	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
Components:	
Ethanol	No data available.
Methanol	No data available.

Toxicity to microorganisms

Product:	No data available.
Components:	
Ethanol	LC 50 (Turbellarian, flatworm (Dugesia tigrina), 96 h): > 100 mg/l Mortality
Methanol	LC 50 (Turbellarian, flatworm (Dugesia tigrina), 96 h): > 100 mg/l Mortality

Persistence and Degradability

Biodegradation

Product:	Expected to be readily biodegradable.
Components:	

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Ethanol	Readily biodegradable 13.6 % (5 d) Soil Read-across from supporting substance (structural analogue or surrogate), Supporting study 89 % (14 d) Detected in water. Experimental result, Supporting study 53.4 % (5 d) Soil Read-across from supporting substance (structural analogue or surrogate), Supporting study 46.3 % (5 d) Soil Read-across from supporting substance (structural analogue or surrogate), Supporting study
Methanol	84 % Experimental result, Key study Detected in water. 46.3 % (5 d) Experimental result, Supporting study Soil 69 % Experimental result, Key study Detected in water. 71.5 % (5 d) Experimental result, Key study Detected in water. 82.7 % (5 d) Experimental result, Key study Detected in water.

BOD/COD Ratio

Product:	No data available.
Components:	
Ethanol	No data available.
Methanol	No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product:	No data available.
Components:	
Ethanol	Potential to bioaccumulate is low.
Methanol	Green algae (Chlorella fusca vacuolata), Bioconcentration Factor (BCF): 28,400 (Static)

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.
Components:	
Ethanol	No data available.
Methanol	Log Kow: -0.77

Mobility in soil:

Product	No data available.
Components:	
Ethanol	soil - Very mobile liquid
Methanol	No data available.

Results of PBT and vPvB assessment:

Product	No data available.
Components:	
Ethanol	Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccummulative) criteria
Methanol	No data available.

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Other adverse effects:

Other hazards
Product: These materials have not been tested for environmental effects.

13. Disposal considerations

General information: Dispose of waste and residues in accordance with local authority requirements. This product is highly flammable. Don't use fire to cut empty container after use.

Disposal methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

14. Transport information

International regulations

IATA

UN number or ID number:	UN 3316
Proper Shipping Name:	Chemical kit
Transport Hazard Class(es):	
Class:	9
Label(s):	9MI
Packing Group:	III
Environmental Hazards	
Marine Pollutant:	No
Limited quantity	
Special precautions for user:	–
Other information	
Passenger and cargo aircraft:	Forbidden.
Cargo aircraft only:	Forbidden.

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IMDG

UN number or ID number:	UN 3316
UN Proper Shipping Name:	CHEMICAL KIT
Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-P
Packing Group:	III
Environmental Hazards	
Marine Pollutant:	No
Limited quantity	
Special precautions for user:	–

Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable

15. Regulatory information

Classified according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) regulation 2001
Classified according to NZS 5433:1999, UN, IMDG, and IATA.

Ozone Depleting Substances
Not Regulated
Not Regulated

New Zealand. CWC. Chemical Weapons (Prohibition) Act 1996 (Schedules of Chemicals 1-3)
Not Regulated
Not Regulated

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

16.Other Information

Issue Date: 04.07.2022

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Revision Date:	No data available.No data available.
Version #:	3.1
Further Information:	No data available.
References:	No data available.
Disclaimer	Disclaimer: The information contained herein has been obtained from various sources and is believed to be correct as of the date issued. However, neither BD nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability for a particular use of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. BD provides SDS in electronic form so the information may be more easily accessed. Due to the possibility of errors during transmission, BD makes no representations as to the completeness or accuracy of the information.