



SAFETY DATA SHEET

THC Pre-Buffer Solution

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THC Pre-Buffer Solution (40ml, 750ml)

GENERAL USE: The THC Pre-Buffer Solution is a 25% Methanol/ 75% Water solution utilized for the correct operation and reaction required between the sample and the testing media to obtain the appropriate result(s). The solution has a two part function. First, the THC Pre-Buffer Solution is utilized for the optimization of the pH required for the assay to function correctly. Second, the solution is applied to the assay during a pre-incubation phase allowing the sample adequate time to bind with the antibody on the plate.

ORASURE PRODUCT NUMBERS: 61546, 61547

MANUFACTURER

OraSure Technologies, Inc.
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EMERGENCY CONTACT INFORMATION

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COMMENTS: To the best of our knowledge, this Safety Data Sheet conforms to the requirements of the US OSHA 29 CFR 1910.1200, Regulation EC 1907/ 2006 and Canadian Hazardous Products Act.

2. HAZARD IDENTIFICATION

This solution should be handled only by qualified personnel trained in laboratory procedures and familiar with their potential hazards. Specific warnings are given in the instructions for use. The absence of a specific warning should not be interpreted as an indication of safety.

NOTE: Handling, storing or shipping of this product should pose no threat to the individual. If no leak or excessive damage is noted there is no recommended Personal Protective Equipment (PPE) required.

GHS Signal Word: DANGER

GHS CLASSIFICATION:

Table with 3 columns: Health, Environmental, Physical. Health: Acute Toxicity - Category 1, Reproductive Toxicity - Category 1B, Specific Target Organ - Repeated Exposure. Environmental: None. Physical: Flammable Liquid - Category 1.

GHS LABEL:

Table with 2 columns: Symbols: Flammable (flame icon), Symbols List: Acutely Toxic (skull and crossbones, biohazard icons).

Table with 2 columns: Hazard Statements (H224, H300, H340, H318, H305), Precautionary Statements (P210, P211, P233, P235, P261, P262, P264, P270, P281, P301+310, P303+361+353, P305+351+338, P403+233).

ROUTES OF ENTRY: Inhalation, ingestion and absorption.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMMENTS: The following information is furnished for those hazardous constituents that require regulatory control or disclosure at the concentration found in the solution. Note that the information here is often based on data for the chemical raw material (Weight by %, exposure limits, etc.).

Components	CAS Number	Weight %	OSHA TWA:	OSHA STEL:	ACGIH TLV:	ACGIH STEL:
Methanol	67-56-1	25%	200ppm	250ppm	200ppm - Skin	250ppm - Skin
Water	7732-18-5	75%	N/A	N/A	N/A	N/A

4. FIRST AID MEASURES

EYES: Flush eyes with copious water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers while flushing with water. Check for and if possible remove contact lenses. **OBTAIN MEDICAL ATTENTION.**

SKIN: Remove contaminated clothing. Flush/wash the affected area with soap and water for at least 15 minutes. Wash clothing before reuse. Prolonged contact with methanol may defat skin tissue, resulting in drying and cracking.

INGESTION: May be fatal if swallowed. Onset of symptoms may be delayed 18-24 hours after exposure. **DO NOT** induce vomiting. **OBTAIN MEDICAL ATTENTION IMMEDIATELY.**

INHALATION: Remove person from exposure area to fresh air. Treat apparent signs and symptoms. If not breathing give artificial respiration; if breathing is difficult give oxygen. Obtain Medical Attention.

HEALTH EFFECTS: Symptoms of overexposure may include headache, dizziness, congestion and breathing difficulty. Skin contact may result in dermatitis and may cause allergic skin reaction upon repeated exposure.

5. FIRE FIGHTING MEASURE

EXTINGUISHING AGENT:

SMALL FIRES: Dry chemical, CO₂, water spray (fog nozzle or indirect water stream).

LARGE FIRES: Water Spray (fog nozzle, indirect water stream or deluge system), Alcohol resistant Aqueous Film Forming Foam.

FIRE/EXPLOSION HAZARD: Vapors from moderate amounts of uncontained/uncontrolled chemical may travel considerable distance to source of ignition and flash back.

UNUSUAL FIRE/EXPLOSION HAZARD: Emits toxic fumes, which may include oxides of Nitrogen, Sulfur and Hydrogen Chloride under some fire conditions. High concentrations of Methanol may burn with a clear to invisible flame. Concentrations of 25% Methanol or greater in water may be ignited.

FIRE FIGHTING PROCEDURES: Conventional firefighting full protective equipment (with NIOSH-approved self-contained breathing apparatus) and procedures appropriate for the surrounding fire should be sufficient.

NFPA HAZARD INDEX: Health = 1, Flammability = 3, Reactivity = 0.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL/ LEAK: Soak up spill with non-combustible absorbent material (e.g. spill pillows, acid absorbent pads, etc.).

Recover the Methanol and dilute with water to reduce the flammable nature and associated fire hazard. Secure in an appropriate, labeled, container. Material used to absorb the spill may require hazardous material waste disposal in accordance with all Local, State and Federal regulations. Utilize appropriate Personal Protective Equipment (PPE), including gloves, lab coat or apron and eye/face protection. Do not allow spill to enter sewers, confined spaces, drains or waterways.

LARGE SPILLS: If possible, contain chemical by diking. Collect fluid using an intrinsically safe method. Secure in an appropriate, labeled, container. Soak/Wipe up remaining spilled chemical or residue with non-combustible absorbent material (e.g. spill pillows, acid absorbent pads, etc.). Properly disposal of the material in accordance with all Local, State and Federal regulations. Utilize appropriate Personal Protective Equipment (PPE), including gloves, lab coat or apron and eye/face protection. Do not allow spill to enter sewers, confined spaces, drains or waterways.

NOTE: A significant large release may pose an immediate fire/explosion hazard. Eliminate all ignition sources. Avoid walking through the spilled chemical as it may be on fire and not visible. Ensure that appropriate spill cleanup materials and PPE are available and used.

7. HANDLING AND STORAGE

HANDLING: No smoking or open flame in storage areas. Keep away from sources of ignition. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Do not ingest or inhale. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks, open flames or other possible ignition sources.

STORAGE: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed. Store all reagents at 2-8°C (35.6 – 46.4°F).

NOTE: Handling and storing of the packaged solution should not pose any threat to the shipper. If the product integrity is in question due to excessive damage, utilize proper safety procedures and handle using appropriate PPE.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH	NIOSH	OSHA – Final PEL'S
Methanol (100%)	200 ppm TWA; 250 ppm STEL Skin potential significant contribution to overall exposure by the cutaneous route.	200 ppm TWA; 260 mg/m ³ TWA; 6000 ppm IDLH.	200 ppm TWA; 260 mg/m ³ TWA

VENTILATION: Use adequate general or localized ventilation if required. Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow the OSHA regulation, 29CFR1910.134. Always use a NIOSH approved respirator when necessary.

EYE PROTECTION: Wear appropriate eye/face protection to prevent eye contact while directly working with the chemical agents. Eye and Face PPE must conform to ANSI Z87.1-2003 (US) or EN 166 (EU) Standards.

PROTECTIVE GLOVES: Wear appropriate protective gloves (Butyl & Nitrile Rubber), when working directly with the chemical agents to prevent skin contact. Replace torn or punctured gloves promptly.

SKIN AND BODY: Wear appropriate body protection to the amount and concentration for the chemical present at the location to prevent contact. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

PROTECTIVE CLOTHING: Wear a lab coat, clinic jacket, gown, apron and/or smock.

COMMENTS: General chemical/industrial hygiene practices are recommended when working with the product. General ventilation should maintain airborne concentration below the permissible exposure limit. Facilities that are storing, handling or using the solution should be equipped with and emergency eyewash/shower or appropriate means for proper flushing of the eyes and/or body.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Clear liquid

MOLECULAR WEIGHT: 32.04

VAPOR PRESSURE: 128 mm Hg @ 20°C (68°F)

BOILING POINT: 760 mm Hg @ 64.7°C (148.5°F)

ODOR: Alcohol like

APPEARANCE: Clear, colorless

VAPOR DENSITY (Air = 1): 1.11

FREEZING/MELTING POINT: -98°C (-144.4°F)

MOLECULAR FORMULA: CH₄O

VISCOSITY: 0.55cP @ 20°C (68°F)

SOLUBILITY: Miscible

10. STABILITY AND REACTIVITY

STABLE: The product is known to be stable under normal temperatures, pressures, use and storage conditions.

CONDITIONS TO AVOID: Avoid excessive heat, sparks, open flame and ignition sources.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizers, strong mineral or organic acids and strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: May emit Formaldehyde, Carbon Dioxide and Carbon Monoxide under normal fire conditions.

11. TOXICOLOGICAL INFORMATION

ACUTE: The product is not known to have any specific health or toxicological effects if used as offered for its intended purpose.

Test Type	Results
Draize (Eye & Skin)	Rabbit, eye: 40 mg = moderate, Rabbit, eye: 100 mg/24H = moderate, Rabbit, skin: 20 mg/24H = moderate,
Inhalation	Rabbit, LC50 = 81000 mg/m ³ /14H Rat. LC50 = 64000 ppm/4H
Oral	Mouse LD50 = 7300 mg/kg Rat LD50 = 14200 mg/kg Rat LD50 = 5600 mg/kg
Skin	Rabbit LD50 = 1580 mg/kg

CHRONIC TOXICITY: None known if used as offered for its intended purpose.

SIGNS & SYMPTOMS OF EXPOSURE: Headaches, nausea, dizziness, drowsiness and un-coordination. Severe vision effects, including increased sensitivity to light, blurred vision and blindness has been known to develop following 8-24 hour symptom free period. Eye, skin and respiratory irritation may occur.

COMMENTS: Odor threshold of Methanol is several times higher than the TLV/TWA. Not listed by IARC, NTP, ACGIH or OSHA as a carcinogen.

12. ECOLOGICAL INFORMATION

NOTE: As offered, for its intended use, the product is not known to have a negative effect on the environment. The below Ecological information will be provided based on the individual chemicals contained in the product.

ECOTOXICITY:

Fish: Fathead Minnow: 29.4 g/l; 96 h; LC50 (unspecified)/ LC50 = 29400 mg/l; 96 h.; 25°C, pH = 7.63.

Fish: Goldfish: 250 ppm; 11 h: resulted in death.

Fish: Rainbow Trout: 8000 mg/l; 48 h; LC50 (unspecified)/ LC50 = 13-68 mg/l; 96 h.; 12°C.

Fish: Rainbow Trout: LC50 = 8000 mg/L; 48 h.

Bacteria: Phytobacterium Phosphoreum: EC50 = 51,000-320,000 mg/l; 30 minutes; Microtox test - no data available.

ENVIRONMENTAL: Dangerous to aquatic life in high concentrations. Aquatic toxicity rating: TLM 96>1000 ppm. May be dangerous if it enters water intakes. Methyl alcohol is expected to biodegrade in soil and water very rapidly. This product will show high soil mobility and will be degraded from the ambient atmosphere by the reaction with photochemically produced hydroxyl radicals with an estimated half-life of 17.8 days. Bioconcentration factor for fish (Golden Ide) < 10. Based on a log K_{ow} of -0.77, the BCF value for Methanol can be estimated to be 0.2.


13. DISPOSAL CONSIDERATION

DISPOSAL METHOD: Disposal of hazardous wastes, product or packaging must be conducted in accordance with all applicable Local, State and Federal Regulations. This section specifies the general and United States RCRA requirements. Processing, use or contamination of the solution may change waste management requirements and options. Contact the authority having jurisdiction for your area for specific disposal requirements.


NOTE: Methanol: U-Listed (U154) Ignitable Waste.

14. TRANSPORTATION INFORMATION

DOT (DOMESTIC ONLY)

	PROPER SHIPPING NAME:	Methanol
	TECHICAL NAME:	N/A
	PRIMARY HAZARD CLASS/DIVISION:	3
	UN/NA NUMBER:	UN1230
	PACKING GROUP:	II
	LABEL:	Flammable Liquid
	ERG #:	131

DOT/IATA/DGM/TDG/IMO:



	PROPER SHIPPING NAME:	Methanol
	TECHICAL NAME:	N/A
	PRIMARY HAZARD CLASS/DIVISION:	3,(6.1)
	UN/NA NUMBER:	UN1230
	PACKING GROUP:	II
	LABEL:	Flammable Liquid, Poison
	IATA PACKING INSTRUCTION:	
	Cargo Aircraft:	307
	Passenger Aircraft:	305, Y305 (1 liter maximum per package)
	IMDG:	
EmS Number:	F-E , S-D	
STOWAGE CATEGORY:	"B", Clear of living quarters	

NOTE: Not listed as a Marine Pollutant.

15. REGULATORY INFORMATION

NOTE: The information here is often based on data for the chemical raw material. The buffer contains a significantly diluted concentration in an aqueous solution; thus, unless otherwise noted the assessment below has NOT taken hazard reduction processing into consideration when possible.

Region/Area/Location	Additional Requirements
United States	29 CFR 1910.1200 (OSHA): Hazardous 40 CFR 372 (SARA Title III): Listed 40 CFR 302 (CERCLA): Listed (5000 lb final RQ; 2270 kg final RQ) Toxic Substance Control Act (TSCA): Listed in the Inventory Clean Air Act: Hazardous Air Pollutant Listed State Right to Know Listed: California, New Jersey, Pennsylvania, Minnesota & Massachusetts.
European/International Regulations	Hazard Symbols: T,F Risk Phrases: R11 Highly flammable; R23/24/25 Toxic by inhalation, in contact with skin and if swallowed; R39/23/24/25 Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Safety Phrases: S16 Keep away from sources of ignition – No smoking; S36/37 Wear suitable protective clothing and gloves; S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible); S7 Keep container tightly closed.

Region/Area/Location	Additional Requirements
Canada (WHMIS)	<p>Canada DSL Listed: Yes Classification: B2, D1B, D2B Canadian Ingredient Disclosure Listed: Yes</p> <p> B2: Flammable liquids with flash points less than 38°C (100.4°F)</p> <p> D1B: Toxic material that causes serious and immediate effects. D2B: Toxic material that causes other toxic effects.</p>

16. OTHER INFORMATION

The information contained herein is accurate to the best of our knowledge. OraSure Technologies Inc. makes no warranty of any kind, expressed or implied, concerning the safe use of this material in the process or in combination with other substances.

SUMMARY OF CHANGES: 5/3/2011; Information update and reformatted to comply with the Globally Harmonized System.