



SAFETY DATA SHEET



1. Identification

Product Name: **Bravo-Zulu- IPA Sat Wipe**

Product Code: 18001, 18003, 18006, 18007

Product Description: BZ Pre-Saturated Wipe
70% TT-I-735 Isopropanol/30% De-Ionized Water

Manufacturer Name: M² Innovations & Insights
Address: 5 Saddlewood Court
Mansfield, TX 76063
USA

Website: www.msqrdinnovations.com

General Phone Number: +1-855-501-2049

Emergency Phone Number: Chemtrec® US: 1-800-424-9300

SDS Creation Date: February 16, 2021

2. Hazard(s) Identification

GHS Pictograms:



Signal Word: **DANGER!**

GHS Class: Flammable Liquid, Category 2.
Eye Irritant, Category 2.
Specific Target Organ Toxicity, Single Exposure, Category 3.

Hazard Statements: Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause drowsiness or dizziness.



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Precautionary Statements:

Keep away from heat/sparks/open flames — No smoking.
Take precautionary measures against static discharge.
In case of fire: Use dry chemical, carbon dioxide to extinguish small fires. Use water for large fires.
Wear protective gloves, protective clothing, and eye protection.
Avoid breathing vapors.
Store in a well-ventilated place. Keep container tightly closed.
IF IN EYES: Rinse cautiously with water for several minutes.
If eye irritation persists: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.

Emergency Overview: DANGER! Flammable. Irritant. May cause drowsiness or dizziness.

Route of Exposure: Eyes. Skin. Inhalation.

Potential Health Effects:

Eye: Eye contact with product or vapors may result in irritation, redness, and blurred vision. May cause pain disproportionate to the level of irritation to eye tissues. Vapor may cause eye irritation experienced as mild discomfort and redness. May cause moderate corneal injury.

Skin: May cause irritation. Repeated exposure may cause a burning sensation and dryness or cracking. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Inhalation: Inhalation of vapors, fumes or mists of the product may be irritating to the respiratory system. Excessive exposure (400 ppm) may cause eye, nose and throat irritation. Higher levels may cause incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest, and death may follow a longer duration and higher levels. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.

Ingestion: May cause irritation. Ingesting large amounts may cause injury. May cause central nervous system depression, nausea and vomiting. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation. Repeated or prolonged inhalation may cause toxic effects.



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Signs/Symptoms: Overexposure may cause headaches and dizziness. Signs and symptoms of excessive exposure include facial flushing, low blood pressure, irregular heartbeats.

Target Organs: Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing Conditions: None generally recognized.

3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>CAS#</u>	<u>Ingredient Percent</u>
Isopropyl alcohol	67-30-0	70% by volume
Dionized Water	7732-18-5	30% by volume

4. First-aid Measures

Eye Contact: 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.

Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Ingestion: Call a POISON CENTER or doctor/physician if you feel unwell.



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5. Fire-Fighting Measures

Flash Point:	20.5 °C (69 °F)
Auto Ignition Temperature:	399 °C (750 °F)
Lower Flammable/Explosive Limit:	2.0 % by volume
Upper Flammable/Explosive Limit:	12.0 % by volume
Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
Unsuitable Media:	Do not use a solid water stream as it may scatter and spread fire.
Protective Equipment:	In the event of a fire, wear Self-Contained Breathing Apparatus (SCBA), approved or in accordance to NFPA, NIOSH, and/or European Standard EN 137 guidelines or equivalent and full protective gear.
Unusual Fire Hazards:	Material burns with an invisible flame.
Hazardous Combustion Byproducts:	Oxides of carbon, oxides of nitrogen and other organic substances may be formed.
Universal Fire And Explosion Hazards:	Vapors are heavier than air and may travel along the ground or may be moved by ventilation to locations distant from the point of material handling or release.
NFPA Ratings:	
Health-1	
Flammability-3	
Reactivity-0	

6. Accidental Release Measure



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- Personal Precautions:** Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid breathing vapor, aerosol or mist. Avoid contact with skin, eyes and clothing.
- Environmental Precautions:** Avoid runoff into storm sewers, ditches, and waterways. Comply with all government regulations on reporting releases.
- Methods of containment:** Spills are very unlikely, because the wiper fabric has absorbed the liquid solvent solution. In the event of a spill, contain with an inert absorbent.
- Methods for cleanup:** Remove all sources of ignition. Collect the wipes with a non sparking tool and absorb or wipe any residual liquids. Place in a suitable container for proper disposal. Use appropriate protective apparel as described in Section 8. Avoid contact with skin and eyes.

7. Handling and Storage

- Handling:** Use with adequate ventilation. Avoid breathing vapor and fumes. Use only in accordance with directions.
- Storage:** Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use. Keep away from aldehydes, halogenated organics, halogens, strong acids, strong oxidizers.
- Special Handling Procedures:** WARNING! Used wipes may catch fire if improperly discarded or stored near ignition sources.
- Hygiene Practices:** Wash thoroughly after handling. Avoid inhaling vapors, mists, or fumes.

8. Exposure Controls/Personal Protection

- Engineering Controls:** Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
- Eye/Face Protection:** Safety glasses with side shields must be worn at all times. If splash hazard exists, wear chemical splash goggles and/or face shield.



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Hand Protection: Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data.
Preferred glove materials include: polyethylene, neoprene, chlorinated polyethylene, natural rubber (latex), polyvinyl chloride (PVC or vinyl), nitrile/butadiene rubber (nitrile or NBR), ethyl vinyl alcohol laminate (EVAL). Avoid gloves made of polyvinyl alcohol (PVA).

Respiratory Protection: Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Comply with the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149
Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Guidelines

Isopropyl alcohol:

Guideline ACGIH: TLV-TWA: 200 ppm
TLV-STEL: 400 ppm

Guideline OSHA: PEL-TWA: 400 ppm

9. Physical and Chemical Properties

Physical State Appearance:	Liquid Pre-saturated wipes
Odor	Alcohol-like
Odor Threshold	Not determined
Boiling Point	82-89°C (180-192 °F)
Melting Point	Not determined
Specific Gravity	0.872 @20°C (68°F)
Solubility	Soluble in water



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Vapor Density	Not determined
Vapor Pressure	43.0 hPa (32mm Hg) @20°C (68°F)
Percent Volatile	100%
Evaporation Rate	Not Determined
pH	Not Determined
Viscosity	Not Determined
Coefficient of Water/Oil	Not Determined
Flash Point	20.5°C (69°F)
Auto Ignition Temperature	399°C (750°F)

10. Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Keep away from heat, ignition sources and incompatible materials.
Incompatible Materials:	Aldehydes, halogenated organics, halogens, strong acids, strong oxidizers

11. Toxicological Information

Isopropyl alcohol

Eye:	Eye - Rabbit Standard Draize test.: 100 mg Eye - Rabbit Standard Draize test.: 10 mg Eye - Rabbit Standard Draize test.: 100 mg/24H (RTECS)
Skin:	Administration onto the skin - Rabbit Standard Draize test.: 500 mg Administration onto the skin - Rabbit LD50: 12800 mg/kg [Details of toxic effects not reported other than lethal dose value] (RTECS)



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- Inhalation:** Inhalation - Rat LC50: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value]
Inhalation - Mouse LC50: 53000 mg/m³ [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes]
Inhalation - Rat LC50: 72600 mg/m³ [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] (RTECS)
- Ingestion:** Oral - Rat LD50: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)]
Oral - Mouse LD50: 3600 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)]
Oral - Mouse LD50: 3600 mg/kg [Behavioral - General anesthetic]
Oral - Rat LD50: 5000 mg/kg [Behavioral - General anesthetic] (RTECS)

12. Ecological Information

- Ecotoxicity:** No ecotoxicity data was found for the product.
- Environmental Fate:** No environmental information found for this product.
- Isopropyl alcohol:**
- Ecotoxicity:** LC50; Species: 1400000 ug/L for 48 hr Crangon crangon (Common Shrimp)
LC50; 10000000 ug/L for 24 hr Species: Daphnia magna (Water Flea)
LD50; >5000 mg/L for 24 hr Species: Carassius auratus (goldfish)
LC50; 11,130 mg/L for 48 hr Species: Pimephales promelas (fathead minnows)
- Environmental Fate:** Isopropanol is expected to have very high mobility in soil.
- Bioaccumulation:** Bioconcentration in aquatic organisms is low.

13. Disposal Considerations



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Waste Disposal:

Consult with the US EPA Guidelines listed in 40CFR Part 261.3 on waste for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state, local, or provincial waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

WARNING! Used wipes may catch fire if improperly discarded or stored near ignition sources.

Contaminated Packaging:

Do not reuse containers without proper cleaning or reconditioning.

14. Transportation Information

DOT Shipping Name:	Solids Containing Flammable Liquid, n.o.s. (Isopropanol). (Limited Quantity)
DOT UN Number:	UN3175 (Limited Quantity)
DOT Hazard Class	4.1
DOT Packing Group	II

15. Regulatory Information

N/A

16. Other Information