

# MATERIAL SAFETY DATA SHEETS

## **PRODUCT CHEMICAL**

ELECTROLYTE METHYL ALCOHOL / BORIC ACID

MATERIAL SAFETY DATA SHEET

## **BOOSTER FLUID SOLUTION**

### **I. PRODUCT IDENTIFICATION**

<u>CHEMICAL NAME</u>	Methanol	<u>CHEMICAL FAMILY</u>	Alcohols
<u>COMMON SYNONYMS</u>	Methyl Alcohol; Wood Alcohol; Carbinol; Methylol; Wood Spirit		
<u>FORMULA</u>	CH <sub>3</sub> OH	<u>FORMULA WEIGHT</u>	32.04
<u>CAS No.</u>	67-56-1	<u>NIOSH/RTECS No.</u>	PC1400000
<u>PRODUCT USE:</u>	Rectifying Solution		

### **II. HAZARDOUS INGREDIENTS**

<u>INGREDIENT NAME</u>	<u>CAS NUMBER</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CONCENTRATION</u>
Methanol	67-56-1	200 ppm	200 ppm	90-100 %
Boric Acid	10043-35-3	None Established	None Established	0-10 %
GREEN Coloring	None Known	None Established	None Established	.05-.5 %

### **III. PHYSICAL PROPERTIES**

<u>PHYSICAL FORM</u>	Liquid	<u>SPECIFIC GRAVITY</u>	0.79 (H <sub>2</sub> O=1)
<u>COLOR &amp; ODOR</u>	GREEN, Pungent Odor	<u>VAPOR DENSITY</u>	1.11 (air=1)
<u>BOILING POINT</u>	65°C (149°F)	<u>VAPOR PRESSURE</u>	(mmHg): 96@20°C
<u>MELTING POINT</u>	-98°C (-144°F)	<u>EVAPORATION</u>	4.6 (butyl acetate)



Blindness, headache, nausea, vomiting, dizziness, gastrointestinal irritation, central nervous system depression and hearing loss may occur.

SKIN CONTACT

No hazards identified.

EYE CONTACT

May cause irritation and temporary corneal damage.

CHRONIC EXPOSURE

Chronic exposure may lead to kidney damage or liver damage.

AGGRAVATION OF PRE-EXISTING CONDITIONS

Eye disorders, skin disorders, liver or kidney disorders

CARCINOGENICITY

Not listed by NTP, IARC or regulated as a carcinogen.

## VI. FIRST AID

INHALATION

Remove to fresh air. Call a physician. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Prompt action is essential.

INGESTION

If swallowed call a physician. If person is conscious, immediately drink large quantities of water. Induce vomiting.

SKIN CONTACT

In case of contact with skin, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

EYE CONTACT

Immediately flush eyes with running water for 15 minutes. Call a physician.

## VII. EMPLOYEE PROTECTION RECOMMENDATIONS

EYE/SKIN PROTECTION

Use Safety goggles and face shield, uniform, protective suit, rubber gloves are recommended.

PERSONAL RESPIRATORS

Respiratory protection required if airborne concentration exceeds TLV. There are no cartridges for methanol vapors. Handling operations should be conducted with a chemical fume hood. At concentrations above

200 ppm, a self-contained breathing apparatus is advised.

VENTILATION SYSTEM Use general or local exhaust ventilation to meet TLV requirements.

## VIII. REACTIVITY DATA

STABILITY Stable under ordinary conditions of use and storage.

CONDITIONS TO AVOID Heat, flame, other sources of ignition

HAZARDOUS  
POLYMERIZATION Will not occur.

INCOMPATIBILITIES Strong oxidizing agents, strong acids, zinc, aluminum, magnesium

DECOMPOSITION  
BYPRODUCTS Carbon monoxide, carbon dioxide, formaldehyde

## IX. SPILL AND LEAK PROCEDURES

GENERAL SAFETY Remove all sources of ignition; ventilate area. Provide protection from inhalation of dust or fumes.

SPILL OR LEAK  
RESPONSE Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources; no flares, smoking or flames in area. Stop leak if you can do so without risk. Use water spray to reduce vapors. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.

WASTE DISPOSAL Check Federal, State, and local environmental regulations.

## X. SPECIAL PRECAUTIONS AND STORAGE DATA

STORAGE TEMPERATURE No data available.

SHELF LIFE No limitation if tightly sealed.

SPECIAL SENSITIVITY No data available.

HANDLING & STORAGE Maintain safe housekeeping practices. Keep container tightly closed. Store in a cool, dry, well-ventilated, flammable liquid

storage area.

PRECAUTIONS Bond and ground containers when transferring liquid

## XI. SHIPPING INFORMATION

D.O.T. SHIPPING NAME Methanol

HAZARD CLASS

3

U.N. NUMBER UN1230, Reportable Quantity: 5000 Lbs.

PACKING GROUP II

LABELS 3 Flammable Liquid

## XII. ANIMAL TOXICITY DATA

ORAL LD 50 5628 mg/k (RAT)

INTRAPERITONEAL LD 50 9540 mg/k (RAT)

SUBCUTANEOUS LD 50 9800 mg/kg (MOUSE)

SKIN LD 50 20 g/kg (RABBIT)

## XIII. FEDERAL REGULATORY INFORMATION

OSHA STATUS Hazardous

TSCA STATUS Listed on TSCA inventory

CERCLA RQ 5000 Lbs

RCRA STATUS Not hazardous waste in purchased form

### SARA TITLE III

S302 EHS RQ None established

S313 TOXIC CHEMICALS Yes, Methanol

S311/312 HAZARD CATEGORIES Acute: Yes, Chronic: Yes, Flammability: Yes, Pressure: No, Reactivity: No

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