

BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name: Methacarn	Code: 2810
Supplier: BBC Biochemical	MSDS#: 2810
Synonym:	Validation Date: 2-23-09
Trade Name: Methacarn	Print Date: 2-23-09
Material Uses: Tissue Fixation	Responsible Name: Dr. Biesecker
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477

Section 2. Composition and Information on Ingredients

Name	CAS#	% by Weight	Exposure Limits
1) Methyl Alcohol	67-56-1	Information not available.	200 ppm TWA
2) Acetic Acid, Glacial	64-19-7	Information not available	10 ppm TWA
3) Acetone	67-64-1	Information not available	1000 ppm TWA

Section 3. Hazards Identification

Physical State and Appearance	Clear, colorless liquid.
Emergency Overview	Not available.
Routes of Entry	Not available.
Potential Acute Health Effects	
Eyes	Irritation
Skin	Irritation
Inhalation	May cause dizziness, headache, nausea, narcosis
Ingestion	May cause nausea, blindness, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system
Potential Chronic Health Effects	Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects. Cited in Registry of Toxic Effects of Substances (RTECS)
Medical Conditions	Not available
Aggravated by Overexposure	
Overexposure/Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash thoroughly with water.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting. Seek medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in	Not available.

Presence of Various Substances

Fire Fighting Media and Instructions Dry Chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors.

Protective Clothing (Fire) Fire fighters should use self-contained breathing apparatus and protective clothing.

Special Remarks on Fire Hazards

Special Remarks on Explosion Hazards

Section 6. Accidental Release Measures

Small Spill and Leak

Large Spill and Leak

Section 7, Handling and Storage

Handling Store and use in areas away from heat, sparks, and open flame. Use adequate ventilation. Avoid repeated or prolonged skin contact or breathing of vapors. Do not break vapors.

Storage Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

Section 8. Exposure Controls / Personal Protection

Engineering Controls

Personal Protection

Eyes Safety glasses with approved side shields should be worn at all times.

Body Protective clothing to minimize skin contact. Eye wash and safety shower available.

Respiratory Use NIOSH or MSHA approved respirators in absence of proper environmental control.

Hands Latex, Nitrile or equivalent.

Feet

Personal Protection in Case of a Large Spill

Product Name	Exposure Limits
1)Acetone CAS 67-64-1	1000 ppm TWA
2)Methyl Alcohol CAS 67-56-1	200 ppm TWA
3)Glacial Acetic Acid CAS 64-19-7	10 ppm TWA

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Clear, colorless liquid.	Odor:	Not available.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Not available.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	64.5°C		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	(Water=1): Approximately 0.791		
Vapor Pressure	97 @ 20°C		
Vapor Density	(Air=1): Methanol 1.1		
Volatility	99.9+		
Odor Threshold	Not applicable.		
Evaporation Rate	(BuOAc=1): 5.91		
VOC	Not available.		
Viscosity	Not available.		
Ionicity (in water)	Not available.		
Dispersion Properties	Not available.		
Solubility	Miscible		
Physical Chemical Comments	Not available.		

Section 10. Stability and Reactivity

Stability and Reactivity Stable

Conditions of Instability Heat

Incompatibility with Strong oxidizing agents, such as nitrates, perchlorates, peroxides, chromic, nitric and sulfuric acid.

Various Substances

Hazardous Decomposition Products Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide, formaldehyde) may be released in a fire.

Hazardous Polymerization Will not occur.

Section 11. Toxicological Information

Toxicity to Animals CAS# 67-64-1:
 Dermal, guinea pig: LD50 = >9400 uL/kg;
 Draize test, rabbit, eye: 20 mg Severe;
 Draize test, rabbit, eye: 20 mg/24H Moderate;
 Draize test, rabbit, eye: 10 uL Mild;
 Draize test, rabbit, skin: 500 mg/24H Mild;
 Inhalation, mouse: LC50 = 44 gm/m³/4H;
 Inhalation, rat: LC50 = 50100 mg/m³/8H;
 Oral, mouse: LD50 = 3 gm/kg;
 Oral, rabbit: LD50 = 5340 mg/kg;
 Oral, rat: LD50 = 5800 mg/kg;

CAS# 67-56-1:
 Draize test, rabbit, eye: 40 mg Moderate;
 Draize test, rabbit, eye: 100 mg/24H Moderate;
 Draize test, rabbit, skin: 20 mg/24H Moderate;
 Inhalation, rabbit: LC50 = 81000 mg/m³/14H;
 Inhalation, rat: LC50 = 64000 ppm/4H;
 Oral, mouse: LD50 = 7300 mg/kg;
 Oral, rabbit: LD50 = 14200 mg/kg;
 Oral, rat: LD50 = 5600 mg/kg;
 Skin, rabbit: LD50 = 15800 mg/kg;

CAS# 64-19-7:
 Draize test, rabbit, skin: 50 mg/24H Mild;
 Inhalation, mouse: LC50 = 5620 ppm/1H;
 Oral, rat: LD50 = 3310 mg/kg;
 Skin, rabbit: LD50 = 1060 uL/kg;

Chronic Effects on Humans

Other Toxic Effects on Humans

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans Not available.

Special Remarks on Other Toxic Effects on Humans Not available.

Section 12. Ecological Information

Ecotoxicity Not available.

BODS and COD Not available.

Biodegradable/OEDC Not available.

Mobility Not available.

Toxicity of the Products of Biodegradation Not available.

Special Remarks on The Products of Biodegradation Not available.

Section 13. Disposal Considerations

Waste Information Not available.

Waste Stream Not available.

Consult your local or regional authorities.

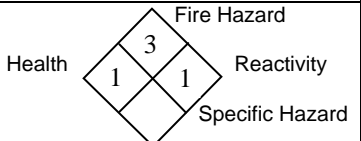
Section 14. Transport Information

DOT Classification Flammable Liquid, UN1230, Flammable Liquids, n.o.s., (Methanol), 3, II

Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	TDG (Canada) Information not available.
ADR/RID Classification	ADR (Europe) Information not available.
IMO/IMDG Classification	IMDG Information not available.
ICAO/IATA Classification	See IATA regulations. Flammable Liquid, UN1230, Flammable Liquids, n.o.s., (Methanol), 3, II

Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	3		
	Reactivity	1		
	Personal Protection			

References

Other Special Considerations

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.