

Bondol

LABORATORIES, INC.

Safety Data Sheet

Hercules

SDS REVISION DATE:

05/28/2015

1. Identification of the substance / mixture and of the company / undertaking

1.1 Product Identifier:

Product Identity:

Hercules

Alternate Names:

Preservative

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Intended Use:

Arterial Embalming

Application Method:

See Technical Data Sheet

1.3 Details Of The Supplier Of the Safety Data Sheet:

Company Name:

Bondol Laboratories, Inc.
2313 "51st" Place
Tuxedo, MD 20785

Emergency:

CHEMTREC (USA)

800-424-9300

Bondol Laboratories, Inc.
(Customer Service)

800-635-7334

2. Hazard Identification Of The Product

2.1 Classification Of The Substance or Mixture:

Acute Tox: 4;H302

Harmful if swallowed

Acute Tox: 3;H311

Toxic in contact with skin

Acute Tox: 2;H330

Harmful if inhaled

Skin Corr: 1B;H314

Causes severe skin burns and eye damage

Eye Dam: 1;H318

Causes serious eye damage

Skin Sens: 1;H317

May cause an allergic skin reaction

Mutations: 2;H341

No known significant effects or critical hazard

Carc.: 1B;H350

May cause cancer

STOT SE 2;H371

May cause damage to organs

Aquatic Chronic: 1;H410

Very toxic to aquatic life with long lasting effects

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2.2. Label Elements:

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows:



DANGER

H226	Flammable liquid and vapor
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes Severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Harmful if inhaled
H341	Suspected of causing genetic defects
H350	May cause cancer
H371b	May cause damage to organs if inhaled or swallowed
H371h	May cause damage to organs in contact with skin
H440	Very toxic to aquatic life with long-lasting effects

(PREVENTION):

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat / sparks / open flames / hot surfaces – NO SMOKING
P241	Use explosion-proof electrical / ventilation / light / equipment
P261	Avoid breathing dust / fume / gas / mist / vapors / spray
P264	Wash thoroughly after handling
P270	Do not eat, drink or smoke when using this product.
P271	Use in a well-ventilated area; or use only outdoors
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment
P280	Wear protective gloves / eye protection / face protection
P284	Wear respiratory protection

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(RESPONSE):

P301 + 330 + 331	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
P302 + 352	IF ON SKIN: Wash with plenty of soap and water
P303 + 361 + 353	IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower
P304 + 312	IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell
P305 + 351 + 338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing
P308 + 313	IF exposed or concerned: Get medical advice / attention
P309 + 311	If exposed or you feel unwell Call a POISON CENTER or doctor / physician
P310	Immediately call a POISON CENTER or doctor / physician
P320	Special treatment is urgent (see information on this label)
P333 + 313	If skin irritation or a rash occurs: Get medical advice / attention
P340	Remove victim to fresh air and keep at rest in a position comfortable for breathing
P363	Wash contaminated clothing before reuse
P370 + 378	In case of fire: Use alcohol resistant foam, CO2, powder, water spray for extinction. Do not use water jet
P391	Collect spillage

(STORAGE):

P402 + 233	Store in a well ventilated place. Keep container tightly closed
P302 + 352	IF ON SKIN: Wash with plenty of soap and water

(DISPOSAL):

P501	Dispose of contents / container in accordance with local / national regulations
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3. Composition / Information On Ingredients

THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES THAT PRESENT A HAZARD WITHIN THE MEANING OF THE RELEVANT STATE AND FEDERAL HAZARDOUS SUBSTANCES REGULATIONS.

INGREDIENTS / CHEMICAL DESIGNATIONS	WEIGHT %	GHS CLASSIFICATION	NOTES
Formaldehyde CAS Number: 000050-00-0	23 - 50	Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 Carc. 1B;H350 Muta. 2;H341 Skin Corr. 1B;H314 Skin Sens. 1;H317	(1) (2)
Methyl Alcohol CAS Number: 000067-56-1	1.0 - 10	Flam. Liq. 2;H225 Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 STOT SE 1;H370	(1) (2)

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NOTES:

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

THE FULL TEXTS OF THE PHRASES ARE SHOWN IN SECTION 16.

4. First Aid Measures

4.1. Description of first aid measures:

GENERAL INHALATION EYES, SKIN INGESTION

MOVE VICTIM TO FRESH AIR
CALL 911 OR EMERGENCY MEDICAL SERVICE IF DEEMED NECESSARY
GIVE ARTIFICIAL RESPIRATION IF VICTIM IS NOT BREATHING
DO NOT USE "MOUTH-TO-MOUTH" METHOD IF VICTIM INGESTED OR INHALED THE SUBSTANCE; GIVE ARTIFICIAL RESPIRATION WITH AID OF A POCKET MASK EQUIPPED WITH A ONE-WAY VALVE OR THEIR PROPER RESPIRATORY MEDICAL DEVICE.
ADMINISTER OXYGEN IF BREATHING IS DIFFICULT
REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES
IN CASE OF CONTACT WITH SUBSTANCE, IMMEDIATELY FLUSH SKIN OR EYES WITH RUNNING WATER FOR AT LEAST 20 MINUTES.
IN CASE OF BURNS, IMMEDIATELY COOL AFFECTED SKIN FOR AS LONG AS POSSIBLE WITH COLD WATER. DO NOT REMOVE CLOTHING IF ADHERING TO SKIN.
KEEP VICTIM WARM AND QUIET
EFFECTS OF EXPOSURE (INHALATION, INGESTION OR SKIN CONTACT) TO SUBSTANCE MAY BE DELAYED. ENSURE THAT MEDICAL PERSONNEL ARE AWARE OF THE MATERIAL(S) INVOLVED AND TAKE PRECAUTIONS TO PROTECT THEMSELVES.
MOVE VICTIM(S) TO FRESH AIR. CALL EMERGENCY MEDICAL CARE. APPLY ARTIFICIAL RESPIRATION IF VICTIM IS NOT BREATHING. DO NOT USE "MOUTH-TO-MOUTH" METHOD IF VICTIM INGESTED OR INHALED THE SUBSTANCE; GIVE ARTIFICIAL RESPIRATION WITH AID OF A POCKET MASK EQUIPPED WITH A ONE-WAY VALVE OR THEIR PROPER RESPIRATORY MEDICAL DEVICE. ADMINISTER OXYGEN IF BREATHING IS DIFFICULT.
IRRIGATE COPIOUSLY WITH CLEAN FRESH WATER FOR AT LEAST 15 MINUTES, HOLDING THE EYELIDS APART AND SEEK MEDICAL ATTENTION.
REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES. IN CASE OF CONTACT WITH SUBSTANCE, IMMEDIATELY FLUSH SKIN OR EYES WITH RUNNING WATER FOR AT LEAST 20 MINUTES. SHOWER AND WASH WITH SOAP AND WATER. KEEP VICTIM WARM AND QUIET.
IF ACCIDENTALLY SWALLOWED OBTAIN IMMEDIATE MEDICAL ATTENTION. KEEP AT REST. DO NOT INDUCE VOMITING.

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4.2. Most important symptoms and effects, both acute and delayed:

OVERVIEW:	Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Reproductive or genetic defect hazard. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.
INHALATION:	Fatal if inhaled. May cause damage to organs
EYES:	Causes serious eye damage
SKIN:	Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.
INGESTION:	Harmful if swallowed

5. Fire-fighting Measures

5.1. Extinguishing Media:

Dry chemical, foam, carbon dioxide and water fog

5.2. Special hazards arising from the substance or mixture:

-	May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons. Incomplete combustion may also produce irritating smoke and toxic and/or irritating gases or fumes
-	Obtain special instructions before use
-	Do not handle until all safety precautions have been read and understood
-	Keep away from heat / sparks / open flames / hot surfaces – No smoking
-	Avoid breathing dust / fume / gas / mist / vapors / spray
-	

5.3. Advice For Fire-Fighters:

-	Wear positive pressure self-contained breathing apparatus (SCBA)
-	Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection
-	Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible
-	Flammable/combustible material
-	

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5.3. Advice For Fire-Fighters (Con't):

(	Many liquids are lighter than water
-	Runoff from fire control or dilution water may cause pollution
-	Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks)
	Vapors may cause dizziness or suffocation
-	Fire will produce irritating, corrosive and/or toxic gases
-	Contact with substance may cause severe burns to skin and eyes
-	May cause toxic effects if inhaled or ingested/swallowed

ERG Guide No. 132

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures:

Water spray may reduce vapor; but may not prevent ignition in closed spaces

6.2. Environmental Precautions:

Do not allow spills to enter drains or water courses

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Method and Material for containment and clean up:

Vapor is heavier than air and may flow along surface to distant ignition and source and flashback

CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper is not available or there is no answer, refer to appropriate telephone number listed on the inside back cover.

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away

Stay upwind

Keep out of low areas

Ventilate closed spaces before entering

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7. Handling and Storage

7.1. Precautions For Safe Handling:

See Section 2 for further details - [Prevention]

7.2. Conditions for Safe Storage, Including Any Incompatibilities:

Handle containers carefully to prevent damage and spillage

Incompatible Materials: Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.

See section 2 for further details – [Storage]

8. Exposure Controls and Personal Protection

8.1. Control Parameters:

Exposure

Cas No.	Ingestion	Source	Value
000050-00-0	Formaldehyde	OSHA	TWA 0.75 ppm STEL. 2ppm
		ACHIH	TWA: 0.3 ppm Ceiling: 1 ppm S, A2, 1
		NIOSH	Ca TWA 0.016 ppm C 0.1 ppm [15-minute]
		Supplier	No Established Limit
000067-56-1	Methyl Alcohol	OSHA	TWA 200 ppm (260 mg/m ³)
		ACHIH	TWA: 200 ppm STEL: 250 ppm Skin
		NIOSH	TWA 200 ppm (260 mg/m ³) ST 250 ppm (325 mg/m ³) [skin]
		Supplier	No Established Limit

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8.1. Control Parameters (Con't):

Carcinogen Data

Cas No.	Ingestion	Source	Value
000050-00-0	Formaldehyde	OSHA	Select Carcinogen: Yes
		NTP	Known: Yes; Suspected: Yes
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
000067-56-1	Methyl Alcohol	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure Controls:

Respiratory:	Not necessary where area is properly ventilated
Eyes:	Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids
Skin:	Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Wear PVC or rubber gloves
Engineering Controls:	Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn
Other Work Practices:	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details – [Prevention]:

9. Physical and Chemical Properties

Appearance:	Clear, slightly viscous, orange-red Liquid
Odor:	Pungent / Pinching odor
Order Threshold:	Not Measured
pH:	8.0 – 9.2
Melting Point / Freezing Point (°C):	N/A
Initial Boiling Point & Boiling Range (°C):	65.5 - 100°C (150 - 212°F)
Flash Point:	48.3°C (350°F)
Evaporation Rate (Ether = 1):	< 1 (n-Butyl acetate = 1)

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9. Physical and Chemical Properties (Con't):

Flammability (solid, gas):	Not Applicable
Upper/lower flammability or explosive limits:	Lower Explosive Limit: 7% Upper Explosive Limit: 10%
Vapor Pressure (Pa):	145 – 155 mm Hg
Vapor Density:	Greater than 1+
Solubility In Water:	Complete
Partition coefficient n=octanol/water (Log Kow):	Not Measured
Auto-ignition Temperature (°C):	Not Measured
Decomposition temperature:	Not Measured
Viscosity (cSt):	Not Measured
VOC %:	97%

9.2 Other Information:

No other relevant information

10. Stability and Reactivity

10.1. Reactivity:

Hazardous Polymerization will not occur

10.2. Chemical Stability:

Stable under the recommended storage and handling conditions prescribed. At higher temperatures, product may form formic acid and methanol

10.3. Possibility Of Hazardous Reactions:

No data available

10.4. Conditions To Avoid:

Avoid heat and open flame. Exposure to cold may cause precipitation of the polymer; will redissolve upon gentle heating.

10.5. Incompatible Materials:

Avoid contact with strong oxidizers, strong alkalies, strong mineral acids, phenol and urea.

10.6. Hazardous Decomposition Products:

May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons. Incomplete combustion may also produce irritating smoke and toxic and/or irritating gases or fumes.

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11. Toxicological Information

ACUTE TOXICITY:

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L 4hr	Inhalation Gas LD50, ppm
Formaldehyde – (50-00-0)	800.00 Rat - Category: 4	270.00, Rabbit - Category: 3	0.578, Rat - Category: 2	No Data Available	168.00 Rat - Category: N/A
Methanol - (67-56-1)	143.00, Human – Category: 3	15,800.00, Rabbit – Category: NA	128.00, Rat - Category: NA	No Data Available	64,000.00 Rat - Category NA

Item	Category	Hazard
Acute Toxicity (mouth)	4	Harmful if swallowed
Acute Toxicity (skin)	3	Toxic in contact with skin
Acute Toxicity (inhalation)	2	Fatal if inhaled
Skin Corrosion / Irritation	1B	Causes severe skin burns and eye damae
Eye Damage / Irritation	1	Causes serious eye damage
Sensitization (respiratory)	- - -	Not Applicable
Sensitization (skin)	1	May cause an allergic skin reaction
Germ Toxicity	2	Suspected of causing genetic defects
Carcinogenicity	1B	May cause cancer
Reproductive Toxicity	- - -	Not applicable
Specific Target Organ Systemic Toxicity (single exposure)	2	May cause damage to organs
Specific Target Organ Systemic Toxicity (repeated exposure)	- - -	Not applicable
Aspiration Hazzard	- - -	Not applicable

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12. Ecological Information

12.1. Toxicity:

Very toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Formaldehyde – (50-00-0)	1.41 Oncorhynchus mykiss	5.80 Daphnia pulex	0.788 (96 hr), Ulva pertusa
Methyl Alcohol – (67-56-1)	100.00, Pimephales promelas	10,000.00 Daphnia magna	16.912 (96 hr), Ulva pertusa

12.2. Persistence and Degradability:

There is no data available on the preparation itself

12.3. Bioaccumulative Potential:

Not Measured

12.4. Mobility In Soil:

No data available

12.5. Results of PBT and vPvB assessment:

This product contains no PBT/vPvB chemicals

12.6. Other Adverse Effects:

No data available

13. Disposal Considerations

13.1. Waste Treatment Methods:

Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.

14. Transport Information

14.1	UN Number	UN1198		
14.2	UN Proper Shipping Name	Formaldehyde solutions, flammable		
14.3	<u>Transport Hazard Class(es)</u>			
	<u>DOT (Domestic Surface Transportation)</u>		<u>IMO / IMOG (Ocean Transportation)</u>	
	DOT Proper Shipping Name	Formaldehyde solutions, flammable	IMDG Proper Shipping Name	Formaldehyde solutions, flammable
	DOT Hazard Class	3	IMDG Hazard Class	3
	DOT Label	3, 8	Sub Class	Not Applicable
	UN/NA Number	UN1198		
	DOT Packing Group	III	IMDG Packing Group	III
	CERCLA/DOT RQ	37 Gal. / 309 lbs.		

14.4	Packing Group	III	
14.5	Environmental Hazards IMDG	Marine Pollutant: Yes (Formaldehyde)	
14.6	Special Precautions For Users	Not Applicable	
14.7	Transport In Bulk According To Annex II of MARPOL73/78 and the IBC Code	Not Applicable	

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15. Regulatory Information

Regulatory Overview:	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. All ingredients of this product are listed on the TSCA (Toxic Substance Control Act) Inventory or are not required to be listed on the TSCA inventory		
WHMIS Classification:	D2A E		
US EPA Tier II Hazards:	Fire:	No	
	Sudden Release Of Pressure:	No	
	Reactive:	No	
	Not Defined:	Yes	
	Delayed (Chronic):	Yes	

EPCRA 311/312 Chemicals and RQs (lbs):

Formaldehyde (100.00)

Methanol (5,000.00)

EPCRA 302 Extremely Hazardous:

Formaldehyde

EPCRA 313 Toxic Chemicals:

Formaldehyde

Methanol

Proposition 65 – Carcinogens (>0.0%):

Formaldehyde

Proposition 65 – Developmental Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 – Female Repro Toxins (>0.0%):

(No Product Ingredients Listed)

Proposition 65 – Male Repro Toxins (>0.0%):

(No Product Ingredients Listed)

N.J. RTK Substances (>1%):

Formaldehyde

Methanol

Penn. RTK Substances (>1%):

Formaldehyde

Methanol

16. Other Information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H330 Harmful if inhaled.

H331 Toxic if inhaled.

H350 May cause cancer.

H370 Causes damage to organs.

H400 Very toxic to aquatic life.

This is the first revision of this SDS format, changes from previous revision not applicable.

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