

Material Safety Data Sheet

Bouin Fixation Fluid, HARLECO ®



1. Product and company identification

Product name : Bouin Fixation Fluid, HARLECO ®
Product code : 7831
Supplier : EMD Chemicals Inc.
480 S. Democrat Rd.
Gibbstown, NJ 08027
856-423-6300 Technical Service
Monday-Friday: 8:00 -5:00 PM
Synonym : None.
Material uses : Industrial applications: Laboratory Reagent
Validation date : 4/20/2009.
In case of emergency : 800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

2. Hazards identification

Emergency overview : DANGER!
MAY BE FATAL IF SWALLOWED.
CAUSES EYE AND SKIN BURNS.
HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.
CAUSES RESPIRATORY TRACT IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.
SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE
CANCER.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING
ORGANS: GASTROINTESTINAL TRACT, CENTRAL NERVOUS SYSTEM, TEETH.
WARNING: This product contains a chemical known to the State of California to cause
cancer.
Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist.
Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate
ventilation. Keep container tightly closed and sealed until ready for use. Wash
thoroughly after handling.

Physical state : Liquid.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard
(29 CFR 1910.1200).

Potential acute health effects

Inhalation : Toxic by inhalation. Irritating to respiratory system.
Ingestion : Very toxic if swallowed. May cause burns to mouth, throat and stomach.
Skin : Corrosive to the skin. Causes burns. Toxic in contact with skin.
Eyes : Corrosive to eyes. Causes burns.

Potential chronic health effects

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs: mucous membranes,
upper respiratory tract, skin, eye, lens or cornea.
Contains material which may cause damage to the following organs: gastrointestinal
tract, central nervous system (CNS), teeth.

2 . Hazards identification

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
Formaldehyde	50-00-0	9 - 10
Acetic Acid	64-19-7	5
Methanol	67-56-1	2 - 3
Picric Acid	88-89-1	0.1 - 1
Water	7732-18-5	80 - 85

4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5 . Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on explosion hazards** : Development of hazardous combustion gases or vapors possible in the event of fire.

6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

6 . Accidental release measures

- Spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7 . Handling and storage

- Handling** : Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8 . Exposure controls/personal protection

Ingredient	Exposure limits
Formaldehyde	ACGIH TLV (United States, 1/2005). Notes: Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens. 2000 Adoption. CEIL: 0.37 mg/m³ Form: All forms CEIL: 0.3 ppm Form: All forms NIOSH REL (United States, 12/2001). Notes: See Appendix A - NIOSH Potential Occupational Carcinogen CEIL: 0.1 ppm 15 minute(s). Form: All forms TWA: 0.016 ppm 10 hour(s). Form: All forms OSHA PEL (United States, 8/1997). STEL: 2 ppm 15 minute(s). Form: All forms TWA: 0.75 ppm 8 hour(s). Form: All forms OSHA PEL 1989 (United States, 3/1989). Notes: See Table Z-2 for operations or sectors excluded from section 1910.1048 or for which limit(s) is(are) stayed. Sec. 1910.1048 Formaldehyde. STEL: 2 ppm 15 minute(s). Form: All forms TWA: 0.75 ppm 8 hour(s). Form: All forms OSHA PEL Z2 (United States, 8/1997). Notes: Sec. 1910.1048 Formaldehyde. STEL: 2 ppm 15 minute(s). Form: All forms TWA: 0.75 ppm 8 hour(s). Form: All forms
Acetic Acid	ACGIH TLV (United States, 1/2008). TWA: 10 ppm 8 hour(s). TWA: 25 mg/m³ 8 hour(s). STEL: 15 ppm 15 minute(s). STEL: 37 mg/m³ 15 minute(s). OSHA PEL 1989 (United States, 3/1989). TWA: 10 ppm 8 hour(s). TWA: 25 mg/m³ 8 hour(s). NIOSH REL (United States, 6/2008). TWA: 10 ppm 10 hour(s). TWA: 25 mg/m³ 10 hour(s). STEL: 15 ppm 15 minute(s). STEL: 37 mg/m³ 15 minute(s). OSHA PEL (United States, 11/2006). TWA: 10 ppm 8 hour(s).

8 . Exposure controls/personal protection

Methanol

TWA: 25 mg/m³ 8 hour(s).
ACGIH (United States, 1994). Absorbed through skin.
 TWA: 262 mg/m³
 STEL: 328 mg/m³
OSHA (United States, 1989). Absorbed through skin.
 TWA: 260 mg/m³
 STEL: 325 mg/m³
ACGIH TLV (United States, 1/2008). Absorbed through skin.
 TWA: 200 ppm 8 hour(s).
 TWA: 262 mg/m³ 8 hour(s).
 STEL: 250 ppm 15 minute(s).
 STEL: 328 mg/m³ 15 minute(s).
OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.
 TWA: 200 ppm 8 hour(s).
 TWA: 260 mg/m³ 8 hour(s).
 STEL: 250 ppm 15 minute(s).
 STEL: 325 mg/m³ 15 minute(s).
NIOSH REL (United States, 6/2008). Absorbed through skin.
 TWA: 200 ppm 10 hour(s).
 TWA: 260 mg/m³ 10 hour(s).
 STEL: 250 ppm 15 minute(s).
 STEL: 325 mg/m³ 15 minute(s).
OSHA PEL (United States, 11/2006).
 TWA: 200 ppm 8 hour(s).
 TWA: 260 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles , face shield
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
 Recommended: safety apron

8 . Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Liquid.
Color : Yellow.
Odor : Not available.
pH : Not available.
Boiling/condensation point : Not available.
Melting/freezing point : Not available.
Relative density : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Odor threshold : Not available.
Evaporation rate : Not available.
Solubility : Soluble in the following materials: water

10 . Stability and reactivity

Chemical stability : The product is stable.
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid : Avoid exposure - obtain special instructions before use.
Materials to avoid : Highly reactive or incompatible with the following materials: oxidizing materials.
 Reactive or incompatible with the following materials: metals, acids and alkalis.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.
 Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.
 Development of hazardous combustion gases or vapors possible in the event of fire.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Test Route	Species	Result
Formaldehyde	LD50 Oral	Guinea pig	260 mg/kg
	LD50 Oral	Rat	100 mg/kg
	LD50 Oral	Mouse	42 mg/kg
	LDLo Oral	Woman	108 mg/kg
	LDLo Oral	Woman	108 mg/kg
Acetic Acid	LD50 Dermal	Mammal	1060 mg/kg
	LD50 Dermal	Rabbit	1060 uL/kg
	LD50 Oral	Mammal	4960 mg/kg
	LD50 Oral	Rat	3310 mg/kg
	LDLo Oral	Rabbit	600 mg/kg
	LDLo Oral	Rabbit	600 mg/kg
	TDLo Dermal	Rat	0.25 mg/kg

11 . Toxicological information

Methanol	TDLo Oral	Rat	0.48 mL/kg
	TDLo Rectal	Rat	300 mg/kg
	TDLo Rectal	Rat	0.24 mL/kg
	TDLo Rectal	Rat	240 mg/kg
	TDLo Rectal	Rat	200 mg/kg
	TDLo Implant	Rat	10 mg/kg
	LC50 Inhalation	Muskrat	5620 ppm
	Vapor		
	LD50 Dermal	Rabbit	15800 mg/kg
	LD50	Rat	7529 mg/kg
	Intraperitoneal		
	LD50 Intravenous	Rat	2131 mg/kg
	LD50 Oral	Rat	5628 mg/kg
	LD50 Oral	Rat	5600 mg/kg
	LD50 Oral	Mouse	7300 mg/kg
	LD50 Oral	Rabbit	14200 mg/kg
	LDLo Oral	Man	6422 mg/kg
	LDLo Oral	Human	428 mg/kg
	LDLo Oral	Human	143 mg/kg
	LDLo Dermal	Monkey	393 mg/kg
	TDLo	Rat	3000 mg/kg
	Intraperitoneal		
	TDLo Oral	Rat	8 g/kg
	TDLo Oral	Rat - Female	3500 mg/kg
	TDLo	Rat	3490 mg/kg
	Intraperitoneal		
	TDLo Oral	Rat	3 g/kg
	LC50 Inhalation	Rat	64000 ppm
	Vapor		
	LC50 Inhalation	Rat	64000 ppm
	Gas.		

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Formaldehyde	A2	1	-	-	Possible	+

May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity

No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

12 . Ecological information

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Formaldehyde	Acute EC50 14.6 mg/L	Daphnia	48 hours
	Acute EC50 14 mg/L	Daphnia	48 hours
	Acute EC50 5.8 mg/L	Daphnia	48 hours
	Acute LC50 1.79 mg/L	Fish	96 hours
	Acute LC50 1.51 mg/L	Fish	96 hours
	Acute LC50 1.41 mg/L	Fish	96 hours
	Acute EC50 65 mg/L	Daphnia	48 hours
	Acute EC50 65000 ug/L	Daphnia - Water flea -	48 hours
	Fresh water	Daphnia magna - Neonate -	<24 hours
	Acute LC50 75 mg/L	Fish	96 hours
Acetic Acid	Acute LC50 88 mg/L	Fish	96 hours

12 . Ecological information

Methanol	Acute LC50 79000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 4 to 8 weeks - 1.1 to 3.1 cm	96 hours
	Acute LC50 75000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 5.3 to 7.2 cm - 3.5 to 3.9 g	96 hours
	Acute LC50 79 mg/L	Fish	96 hours
	Acute LC50 251000 ug/L Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours
	Acute LC50 180000 ug/L Marine water	Crustaceans - Green or European shore crab - Carcinus maenas - Adult	48 hours
	Acute LC50 100000 to 330000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
	Acute LC50 88000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 4 to 8 weeks - 1.1 to 3.1 cm	96 hours
	Acute LC50 117.6 ul/L Marine water	Crustaceans - Brine shrimp - Artemia sp.	48 hours
	Acute LC50 132 ul/L Marine water	Crustaceans - Brine shrimp - Artemia sp.	48 hours
	Acute LC50 70 ul/L Marine water	Crustaceans - Brine shrimp - Artemia sp.	48 hours
	Acute LC50 85.8 ul/L Marine water	Crustaceans - Brine shrimp - Artemia sp.	48 hours
	Acute LC50 52.2 ul/L Marine water	Crustaceans - Brine shrimp - Artemia sp.	48 hours
	Acute LC50 50.1 ul/L Marine water	Crustaceans - Brine shrimp - Artemia sp.	48 hours
	Acute EC50 22200 to 23400 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	Acute EC50 16000 mg/L	Fish	48 hours
	Acute EC50 13200 mg/L	Fish	48 hours
	Acute EC50 >10000 mg/L	Daphnia	48 hours
	Acute EC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours
	Acute EC50 24500000 to 29350000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - LARVAE - <24 hours	48 hours
	Acute EC50 13000000 to 13400000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	Acute EC50 12700000 to 13700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	Acute LC50 19 to 20 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.8 g	96 hours
	Acute LC50 15400 mg/L	Fish	96 hours

12 . Ecological information

Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
Acute LC50 28200000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 0.12 g	96 hours
Acute LC50 28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 to 10 cm	96 hours
Acute LC50 >28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
Acute LC50 20100000 to 20700000 ug/L Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
Acute LC50 15400000 to 17600000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
Acute LC50 >100 mg/L	Fish	96 hours
Acute LC50 >100 mg/L	Daphnia	96 hours
Acute LC50 10000000 to 33000000 ug/L Marine water	Fish - Hooknose - Agonus cataphractus - Adult	96 hours

Environmental effects : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not available.	Chemicals, N.O.S.	Not available.	-		-

PG* : Packing group

15 . Regulatory information

United States

- HCS Classification** : Highly toxic material
Corrosive material
Carcinogen
Target organ effects
- U.S. Federal regulations** : **United States inventory (TSCA 8b)**: All components are listed or exempted.
All components of this product are listed on or compliant with the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: Formaldehyde
SARA 302/304 emergency planning and notification: Formaldehyde
SARA 302/304/311/312 hazardous chemicals: Formaldehyde; Acetic Acid ; Methanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Formaldehyde: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Acetic Acid : Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Methanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Picric Acid
Clean Water Act (CWA) 311: Formaldehyde; Acetic Acid
Clean Air Act (CAA) 112 accidental release prevention: Formaldehyde
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: Formaldehyde
- DEA List I Chemicals (Precursor Chemicals)** : Not listed
- DEA List II Chemicals (Essential Chemicals)** : Not listed

SARA 313

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
Form R - Reporting requirements	Formaldehyde	50-00-0	9 - 10
	Methanol	67-56-1	2 - 3
Supplier notification	Formaldehyde	50-00-0	9 - 10
	Methanol	67-56-1	2 - 3

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

- Connecticut Carcinogen Reporting** : None of the components are listed.
- Connecticut Hazardous Material Survey** : None of the components are listed.
- Florida substances** : None of the components are listed.
- Illinois Chemical Safety Act** : None of the components are listed.
- Illinois Toxic Substances Disclosure to Employee Act** : None of the components are listed.
- Louisiana Spill** : None of the components are listed.
- Louisiana Reporting** : None of the components are listed.
- Massachusetts Spill** : None of the components are listed.
- Massachusetts Substances** : The following components are listed: Formaldehyde; Acetic Acid ; Methanol
- Minnesota Hazardous Substances** : None of the components are listed.
- Michigan Critical Material** : None of the components are listed.
- New Jersey Toxic Catastrophe Prevention Act** : None of the components are listed.
- New Jersey Spill** : None of the components are listed.

15 . Regulatory information

New Jersey Hazardous Substances : The following components are listed: Water; Formaldehyde; Acetic Acid ; Methanol

New York Toxic Chemical Release Reporting : None of the components are listed.

New York Acutely Hazardous Substances : The following components are listed: Acetic acid; Methanol

Pennsylvania RTK Hazardous Substances : The following components are listed: Formaldehyde; Acetic Acid ; Methanol

Rhode Island Hazardous Substances : None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
Formaldehyde	Yes.	No.	Yes.	No.

Canada

WHMIS (Canada) : Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive material

Canadian lists : **CEPA Toxic substances:** None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Methanol
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

EU regulations

Hazard symbol or symbols :



Risk phrases : R40- Limited evidence of a carcinogenic effect.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38- Irritating to eyes, respiratory system and skin.
R43- May cause sensitization by skin contact.

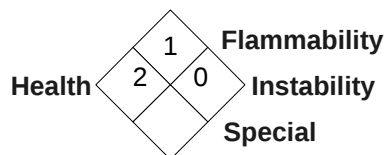
Safety phrases : S2- Keep out of the reach of children.
S36/37- Wear suitable protective clothing and gloves.
S46- If swallowed, seek medical advice immediately and show this container or label.

International regulations

International lists : **Australia inventory (AICS):** All components are listed or exempted.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): All components are listed or exempted.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): All components are listed or exempted.

16 . Other information

National Fire Protection :
Association (U.S.A.)



Notice to reader

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.