

Safety Data Sheet

TripleFix

Revision Date: 08/27/19

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier	Trade name: TripleFix Product code(s): 3382-G
1.2 Relevant identified uses	Laboratory Reagent
Supplier:	Astral Diagnostics Inc. 800-441-0366 Technical Service Monday-Friday: 8:00 -5:00 PM
Synonym:	None.
Material uses:	Laboratory Reagent.
Validation date:	12/11/2013
In case of emergency:	800-424-9300 CHEMTREC (USA) 24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

Emergency Overview:

GHS Label Elements: Pictogram



Signal Word:

Danger!

Hazard statement(s):

- H225:** Highly flammable liquid vapour
- H302:** Harmful if swallowed
- H314:** Causes severe skin burns and eye damage
- H317:** May cause allergic skin reaction
- H318:** Causes serious eye damage
- H350:** May cause cancer (inhalation)
- H370:** Causes damage to organs
- H401:** Toxic to aquatic life

Precautionary statement(s):

- P202:** Do not handle until all safety precautions have been read and understood
- P261:** Avoid breathing in gas, mist, vapors, spray
- P264:** Wash exposed skin thoroughly after handling
- P273:** Avoid release to the environment
- P280:** Wear protective gloves/ eye protection/ face protection.
- P302+P352:** If on skin: Wash with plenty of soap and water

P305+351+338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by volume
Water	7732-18-5	Balance
Formaldehyde	50-00-0	10
Methanol	67-56-1	<1
Tris	77-86-1	<2
Maleic Acid	110-16-7	1
Potassium Hydroxide	1310-58-3	1
Ethanol	64-17-5	62
MIBK	108-10-1	1
IPA	67-63-0	5

4. FIRST AID MEASURES

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: *Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.*

First-aid measures after skin contact: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream

5.2 Special hazards arising from the substance or mixture

No additional information available

5.3 Advice for firefighters

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Gloves. Safety glasses. Combined gas/dust mask with filter type B/P3.

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, vapors, spray. Obtain special instructions before use. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood.

Hygiene measures: Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Comply with applicable regulations.

Storage conditions: Keep container closed when not in use. Protect from sunlight. Store in a well-ventilated place.

Incompatible products: Strong oxidizers.

Incompatible materials: Sources of ignition. Direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult local authorities for acceptable exposure limits.

Component	Source	Type	Value	Note
Formaldehyde	ACGIH	Ceiling	0.37mg/m ³	
	ACGIH	Ceiling	0.3 ppm	
	OSHA	TWA	0.75 ppm	
	OSHA	STEL	2 ppm	
Methanol	ACGIH	TWA	200 ppm	
	ACGIH	STEL	250 ppm	
	NIOSH	TWA	260 mg/m ³ , 200 ppm	
	OSHA	TWA	260 mg/m ³ , 200 ppm	
Ethanol	OSHA	TWA	1900 mg/m ³	
	OSHA	ppm	1000 ppm	
Isopropanol	ACGIH	TWA	200 ppm	
	ACGIH	STEL	400 ppm	
	NIOSH	TWA	980 mg/m ³ , 400 ppm	
	OSHA	TWA	980 mg/m ³ , 400 ppm	
Potassium Hydroxide	ACGIH	Ceiling	2 mg/m ³	
	NIOSH	REL	2 ppm	

Personal protective equipment: Safety glasses. Gloves. Protective clothing. High gas/vapor concentration: gas mask with filter type B.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or face shield.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Wear appropriate mask. Gas mask with filter type B.

Other information: Do not eat, drink or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.

Flash Point: NA

pH: NA

Melting/freezing point: NA

Vapor pressure: NA

Odor threshold: NA

VOC: NA

Color: clear to yellow

Odor: characteristic

Boiling/condensation point: NA

Relative density: NA

Vapor density: NA

Evaporation rate: NA

Solubility: Soluble in the following materials: water

10. STABILITY AND REACTIVITY

10.1. Reactivity

Thermal decomposition generates: Corrosive vapors

10.2. Chemical stability

Not established

10.3. Possibility of hazardous reactions

Not established

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Formaldehyde (50-00-0)

LD50 oral rat 500 mg/kg

ATE US (oral) 0.579 ppm/4hr

Water (7732-18-5)

LD50 oral rat ≥ 90000 mg/kg

ATE US (oral) 90000.000 mg/kg body weight

Methanol (67-56-1)

LD50 oral rat >5000 mg/kg

LD50 dermal rabbit 18500 mg/kg

LC50 inhalation rat 85 mg/4hr

LC50 inhalation rat 64000 ppm/4hr

Potassium Hydroxide (1310-58-3)

LD50 oral rat 333 mg/kg

ATE US oral 333 mg/kg body weight

Ethanol

LD50 oral rat 10740 mg/kg bodyweight

LD50 dermal rabbit >16000 mg/kg

Isopropanol

LD50 dermal rabbit 12870 mg/kg

LC50 inhalation rat 73 mg/l/4hr

ATE oral

5045 mg/kg body weight

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/irritation: Causes serious eye damage

Respiratory or skin sensitization: may cause allergic reaction to skin

Germ cell mutagenicity: Not classified

Carcinogenicity: May cause cancer (inhalation)

12. ECOLOGICAL INFORMATION

Toxicity:

Formaldehyde		
	LC50 fish 1	41 mg/l 96h
	EC50 Daphnia 1	14.7 mg/l 24h
	EC50 Daphnia 2	2 mg/l
Ethanol		
	LC50 fish1	14200 mg/l
	EC50 Daphnia1	9300 mg/l
Methanol		
	LC50 fish 1	15400 mg/l 96h
	EC50 Daphnia 1	>10000 mg/l
Isopropanol		
	LC50 fish2	9640 mg/l
	EC50 Daphnia2	13299 mg/l

Persistence and degradability:

Formaldehyde		
	Persistence and degradability	Readily biodegradable in water
	BOD	0.64 g O ₂ /g
	COD	1.06 g O ₂ /g
	ThOD	1.068 g O ₂ /g
Ethanol		
	BOD	0.8-0.967 gO ₂ /g
	COD	1.70 gO ₂ /g
	ThOD	2.10 gO ₂ /g
Methanol		
	Persistence and degradability	Readily biodegradable in water
	BOD	0.6-1.12 g O ₂ /g
	COD	1.42 g O ₂ /g
	ThOD	1.5 g O ₂ /g
Isopropanol		
	BOD	1.19 gO ₂ /g
	COD	2.23 gO ₂ /g
	ThOD	2.4 gO ₂ /g

Bioaccumulative potential:

Formaldehyde		
	Log Pow	-0.78-0.0
Methanol		
	BCF fish 1	<10
	Log Pow	-0.77

Mobility in soil:

Formaldehyde		
	Ecology-soil	Toxic to flora
Methanol		

	Surface Tension	0.023 N/m
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PBT and vPvB assessment: no data available
Other adverse effects: avoid release into the environment

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

DOT (US)
 UN-No. UN3265
 Proper shipping name: Corrosive liquid, acidic, organic
 Transport hazard class(es): Class 8- corrosive material
 Packaging group: III – Minor danger

15. REGULATORY INFORMATION

15.1 US Federal Regulations

Formaldehyde

Reportable quantity, section 304 of EPA's list of lists, 100 lb
 SARA Section 302 Threshold planning quantity, 500 lb

Methanol

SARA Section 311/312 Hazard Classes- Immediate (acute) health hazard, fire hazard
 Reportable quantity, section 304 of EPA's list of lists, 5000 lb
 Potassium Hydroxide

Potassium Hydroxide

SARA section 311/312 Hazard Classes- Immediate health hazard
 RQ 1000lb

Ethanol

SARA Section 311/312 Hazardous Classes: Fire hazard, Acute health hazard, chronic health hazard

15.2 International Regulations (WHMIS Classifications)

Formaldehyde

Canada Class D Division 1 Subdivision A- Very toxic material causing immediate and serious toxic effects, Canada Class D Division 2 Subdivision A- Very toxic material causing other toxic effects, Canada Class E- Corrosive material

Methanol

Canadian Class B Division 2- Flammable liquid, Canadian Class D Division 2 Subdivision A- Very toxic material causing other toxic effects, Canadian Class D Division 2 Subdivision B- Toxic material causing other toxic effects

Ethanol

WHMIS Classification: Class B Division 2-Flammable Liquid, Class D Division 2 Subdivision A- Very toxic material causing other toxic effects, Class D Division 2 subdivision B- Toxic material causing other toxic effects

Isopropanol

WHMIS Classification: Class B Division 2-Flammable Liquid, Class D Division 2 Subdivision A- Very toxic material causing other toxic effects

15.3 California Proposition 65



WARNING: This product can expose you to chemicals including Formaldehyde, which is known to the State of California to cause cancer, and Methanol and MIBK, which is known to the State of California to cause birth defects or to the reproductive harm. For more information go to www.P65Warnings.ca.gov

16. OTHER INFORMATION

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



Notice to reader

This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Astral Diagnostics, Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.