

Moist Mark Plus™
1. Identification
Product Name: Moist Mark Plus™ (ink contained therein)

Item #: MP1000, MP2100, MP1000ML

Synonyms: N/A

Recommended Use: Special Stains

Restrictions on Use: N/A

Manufacturer:

 Cancer Diagnostics, Inc.
 4300 Emperor Blvd. #400
 Durham, NC 27703
 1-877-846-5393

In Case of Emergency:

 Chemtrec US 1-800-424-9300
 Chemtrec International 703-527-3887

2. Hazards Identification
OSHA Hazard Classification(s):

Skin Irritation - Category 2

Eye Irritation - Category 2

Skin Sensitivity – Category 1

Signal Word: Warning

Hazard Statement(s): Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Pictogram(s):

Precautionary Statement(s):
Prevention: If medical advice is needed, have product container or label at hand. Keep out of reach of children. Wear protective clothing/eye protection/face protection.

Response: N/A

Storage: N/A

Disposal: Dispose of contents/container in accordance with local and national regulations.

Descriptions of Hazards not otherwise classified: No data available.

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

No	Substance name			Additional information	
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	ethanediol				
	107-21-1 203-473-3 603-027-00-1 -	Xn; R22	Acute Tox. 4*; H302	1.00 - 5.00	%-b.w.
2	propan-2-ol				
	67-63-0 200-661-7 603-117-00-0 -	F; R11 Xi; R36 R67	Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336	0.10 - 1.00	%-b.w.
3	1,3,5-tris(2-hydroxyethyl)-1,3,5-triazinane				
	4719-04-4 225-208-0 613-114-00-6 -	Xn; R22 R43	Acute Tox. 4*; H302 Skin Sens. 1; H317	0.10 - 1.00	%-b.w.

Moist Mark Plus™

4	ammonia, anhydrous				
7664-41-7 231-635-3 007-001-00-5 -	R10 T; R23 C; R34 N; R50	Acute Tox. 3*; H331 Aquatic Acute 1; H400 Flam. Gas 2; H221 Press. Gas Skin Corr. 1B; H314	0.10 - 1.00	%-b.w.	
5	1,2-benzisothiazol-3(2H)-one				
2634-33-5 220-120-9 613-088-00-6 -	Xn; R22 Xi; R38 Xi; R41 R43 N; R50	Acute Tox. 4*; H302 Aquatic Acute 1; H400 Eye Dam. 1; H318 Skin Irrit. 2; H315 Skin Sens. 1; H317	< 0.50	%-b.w.	
6	CARBON BLACK				
1333-86-4 215-609-9 - -	-	-	10.00 - 20.00	%-b.w.	

Full text for all R-phrases, H-phrases and EUH-phrases: pls. see section 16(*, **, ***, ****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
3	-	Skin Sens. 1; H317: C \geq 0.1%	-	-
4	U	-	-	-
5	-	Skin Sens. 1; H317: C \geq 0.05%	-	-

Full text for the notes: pls. see section 16 *Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)*.

Other information

The data subject of this Material Safety Data sheet refer to the ink contained in this product (marker).

4. First Aid Measures
Description of first aid measures

General Information: In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

Inhalation: Ensure supply of fresh air.

Skin Contact: Wash off immediately with soap and water.

Eye Contact: Remove contact lens. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

Ingestion: Rinse mouth thoroughly with water. Call a doctor immediately. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: No data available.

Indication of any immediate medical attention and special treatment needed: No data available.

5. Fire- Fighting Measures
Extinguishing media

Suitable extinguishing media: Foam; Carbon dioxide; Extinguishing powder; Water spray jet

Unsuitable extinguishing media: High power water jet

Special hazards arising from the substance or mixture: None known.

Advice for firefighters: Use self-contained breathing apparatus. Wear protective clothing.

6. Accidental Release Measures
Emergency Procedures:
Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing.

For emergency responders: No data available.

Personal protective equipment (PPE): see Section 8.

Moist Mark Plus™

Environmental precautions: Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up: Take up with absorbent material (e.g., sand, kieselguhr, universal binder). When picked up, treat material as prescribed under heading "Disposal considerations".

Reference to other sections: No data available.

7. Handling and Storage

Precautions for safe handling

Advice on safe handling: Provide good ventilation of working area (local exhaust ventilation, if necessary). Observe the usual precautions for handling chemicals.

General protective and hygiene measures: Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Wash hands before breaks and after work.

Advice on protection against fire and explosion: No special measures necessary.

Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions: Keep container tightly closed and dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels: Store product in closed containers. Protect from heat and direct sunlight.

Advice on storage assembly: None known

Specific end use(s): No data available.

8. Exposure Controls/Personal Protection

Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.		
1	CARBON BLACK	1333-86-4	215-609-9		
List of approved workplace exposure limits (WELs) / EH40					
Carbon black					
	STEL	7	mg/m ³		
	TWA	3.5	mg/m ³		
2	ethanediol	107-21-1	203-473-3		
2000/39/EWG					
Ethylene glycol					
	STEL	104	mg/m ³	40	ml/m ³
	TWA	52	mg/m ³	20	ml/m ³
	Skin resorption / sensibilisation	Skin			
List of approved workplace exposure limits (WELs) / EH40					
Ethane 1,2-diol					
	particulate				
	TWA	10	mg/m ³		
	Skin resorption / sensibilisation	Sk			
List of approved workplace exposure limits (WELs) / EH40					
Ethane 1,2-diol					
	vapour				
	STEL	104	mg/m ³		
	TWA	52	mg/m ³		
	Skin resorption / sensibilisation	Sk			
3	propan-2-ol	67-63-0	200-661-7		
List of approved workplace exposure limits (WELs) / EH40					
Propan-2-ol					
	STEL	1250	mg/m ³	500	ml/m ³
	TWA	999	mg/m ³	400	ml/m ³
4	ammonia, anhydrous	7664-41-7	231-635-3		
List of approved workplace exposure limits (WELs) / EH40					
Ammonia					

Moist Mark Plus™

	STEL	25	mg/m ³	35	ml/m ³
	TWA	18	mg/m ³	25	ml/m ³
2000/39/EWG					
Ammonia, anhydrous					
	STEL	36	mg/m ³	50	ml/m ³
	TWA	14	mg/m ³	20	ml/m ³

Exposure controls

Appropriate engineering controls: No data available.

Personal protective equipment

Respiratory protection: If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection: Safety glasses: (EN 166)

Hand protection: In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other: Normal chemical work clothing.

Environmental exposure controls: No data available.

9. Physical and Chemical Properties Section

Form/Color: Liquid/Black

Odor: N/A

Odor Threshold: N/A

pH: N/A

Boiling Point and Boiling Range: 100°C

Melting Point/Freezing Point: N/A

Decomposition Temperature: N/A

Flash Point: N/A

Auto-ignition temperature: N/A

Explosive properties: N/A

Oxidising properties: N/A

Flammability (solid/gas): N/A

Upper/Lower flammability or explosive limits: N/A

Vapor Density: N/A

Vapor Pressure: N/A

Evaporation Rate: N/A

Specific Gravity/Relative Density: N/A

Solubility in water: Soluble

Solubility: N/A

Viscosity: N/A

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
log Pow		1.3	
Source		Manufacturer	

Other: N/A

Moist Mark Plus™
10. Stability and Reactivity
Reactivity: N/A

Chemical stability: Stable under recommended storage and handling conditions (See section 7).

Possibility of hazardous reactions: N/A

Conditions to avoid: N/A

Incompatible Materials: None known.

Hazardous Decomposition Products: N/A

11. Toxicological Information
Information on toxicological effects

Acute oral toxicity			
No	Product Name		
1	Ink contained in: CDI's Moist Mark Plus™		
LD50	>	5000	mg/kg
Species	rat		
Source	Manufacturer		

Acute dermal toxicity			
No	Product Name		
1	Ink contained in: CDI's Moist Mark Plus™		
LD50	>	5000	mg/kg
Species	rabbit		
Source	Manufacturer		

Acute inhalational toxicity			
No	Product Name		
1	Ink contained in: CDI's Moist Mark Plus™		
LC50	>	50000	mg/m ³
State of aggregation	Dust/mist		
Species	rat		
Source	Manufacturer		
No	Substance name	CAS no.	EC no.
2	propan-2-ol	67-63-0	200-661-7
LC50		72.6	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Source	Manufacturer		

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Reproduction toxicity: No data available

Carcinogenicity: No data available

STOT-single exposure: No data available

STOT-repeated exposure: No data available

Aspiration hazard: No data available

Moist Mark Plus™
12. Ecological Information
Toxicity:

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	propan-2-ol	67-63-0	200-661-7
LC50		9640	mg/l
Duration of exposure		96	h
Species	Pimephales promelas		
Source	Manufacturer		
2	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
LC50		2.18	mg/l
Duration of exposure		96	h
Species	Oncorhynchus mykiss		
Method	OECD 203		
Source	Manufacturer		

Toxicity to fish (chronic): No data available

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	propan-2-ol	67-63-0	200-661-7
EC50		13299	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Source	Manufacturer		
2	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
EC50		2.94	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	Manufacturer		

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	propan-2-ol	67-63-0	200-661-7
EC50		>	1000 mg/l
Duration of exposure		72	h
Species	Desmodesmus subspicatus		
Source	Manufacturer		
2	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
ErC50		0.11	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	Manufacturer		

Toxicity to algae (chronic): No data available

Bacteria toxicity: No data available

Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	propan-2-ol	67-63-0	200-661-7
Value		95	%
Duration		21	day(s)
Method	OECD 301 E		
Source	Manufacturer		
Evaluation	readily biodegradable		

Moist Mark Plus™
Bioaccumulative potential

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	1,2-benzisothiazol-3(2H)-one	2634-33-5	220-120-9
log Pow		1.3	
Source		Manufacturer	

Mobility in soil: No data available

Results of PBT and vPvB assessment: No data available

Other adverse effects: No data available

Other information: Do not discharge product unmonitored into the environment.

13. Disposal Considerations
Waste treatment methods:

Product: Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging: Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

ADR/RID/AND: The product is not subject to ADR/RID/ADN regulations.

IMDG: The product is not subject to IMDG regulations.

ICAO-TI / IATA: The product is not subject to ICAO-TI / IATA regulations.

Other information: No data available

Environmental hazards: No data available

Special precautions for user: No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not relevant

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU regulations:

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annexe XVII.

No 3

Moist Mark Plus™

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks: Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

Chemical safety assessment: For this mixture a chemical safety assessment has not been carried out.

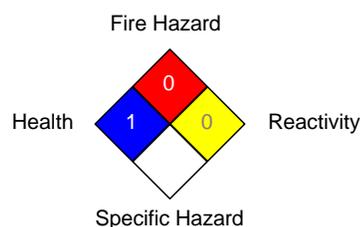
16. Other Information

Revision Date: 11/04/2015

NFPA

Health	1
Fire Hazard	0
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

- R10 Flammable.
- R11 Highly flammable.
- R22 Harmful if swallowed.
- R23 Toxic by inhalation.
- R34 Causes burns.
- R36 Irritating to eyes.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R50 Very toxic to aquatic organisms.
- R67 Vapours may cause drowsiness and dizziness.
- H221 Flammable gas.
- H225 Highly flammable liquid and vapour.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.

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.