

## Safety Data Sheet

### 1. Product and company identification

Description : CMY Dye Ink for Primera LX910  
 Part numbers : 53492 (cyan pg 1-6, magenta pg 7-13, yellow pg 14-20)  
 :  
 Manufacturer : Primera Technology  
 Address : Two Carlson Parkway North, Suite 375, Plymouth, MN 55447  
 Tel : 763-475-6676  
 Information about the product : Product Environmental Office  
 Fax : 763-475-6677  
 e-mail : support@primera.com  
 Emergency phone number For Hazardous Materials Incident Spill, Leak, Fire, Exposure, or Accident  
 +1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

### 2. Hazards identification

GHS Classification : Not classified  
 GHS label element : None

### 3. Composition/information on ingredients

Name	%	CAS No.	OSHA PEL	ACGIH TLV
Water	70 - 85	7732-18-5	None	None
Water Soluble Organic Solvent	15 - 30	Trade secret	None	None
Dye	1 - 5	Trade secret	None	None

### 4. First-aid measures

Inhalation : If symptoms, such as shortness of breath or persistent coughing are experienced, remove source of contamination and move individual to fresh air. If symptoms persist, seek medical attention.

Skin contact : Wash with soap and water. Should irritation occur, seek medical attention. Should irritation occur, seek medical attention.

Eye contact : Do not rub eyes. Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. If irritation develops and persists, seek medical attention.

## Safety Data Sheet

---

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Aggravated conditions : None known.

Notes to physician : No specific antidote.

---

### 5. Fire-fighting measures

Flash point : > 200°C

Auto-ignition temperature : Not determined.

Flammable limits : Not determined.

Extinguishing media : Carbon dioxide, water spray or fog, dry chemical or foam.

Hazardous combustion products : Carbon monoxide, carbon dioxide, unidentified organics.

Special exposure hazards : None known.

Special protective equipment for fire-fighters : Fire fighters should wear full protective clothing, including self-contained breathing apparatus.

NFPA Rating : Health: 1 Flammability: 0 Reactivity: 0

HMIS Classification : Health: 1\* Flammability: 0 Reactivity: 0

---

### 6. Accidental release measures

Personal precautionary : Wear latex, vinyl, or nitrile gloves to prevent staining of skin.

Environmental precautions : Unless specifically permitted for disposal, keep waste out of sewers, watersheds, and waterways. Disposal is subject to national, state, regional, or provincial regulations

Procedure for cleaning/Absorption : Small spill : Absorb small spills with cloth or paper towels or other suitable material. Product waste and emptied containers should be disposed of in accordance with local waste regulations. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

## Safety Data Sheet

---

### 7. Handling and storage

Handling : Keep from freezing.  
Storage : Store in a cool, dry place. Store away from oxidizing material.

---

### 8. Exposure controls/personal protection

Engineering controls : Local exhaust ventilation as necessary to maintain exposures to within applicable limits.  
Respiratory protection : Not required.  
Gloves : Latex, PVC, neoprene, or nitrile gloves are recommended to prevent staining of skin.  
Skin protection : Not required.  
Eyes : Safety glasses with side shields.

---

### 9. Physical and chemical properties

Physical state : Liquid.  
Color : Cyan  
Odor : Faint odor.  
Solubility : Miscible in water.

---

### 10. Stability and reactivity

Stability and reactivity : The product is stable.  
Conditions to avoid : None known.  
Materials to avoid : Reactive or incompatible with the following materials: oxidizing materials.  
Hazardous decomposition products : Carbon monoxide, carbon dioxide, unidentified organics.  
Hazardous polymerization : Will not occur.  
Additional guidelines : None.

---

### 11. Toxicological information

Primary routes of exposure : Inhalation of vapors, Ingestion, skin contact.  
Ingestion : Low acute oral toxicity. Exposure not probable with intended use.

## Safety Data Sheet

---

Inhalation	: Low acute inhalation toxicity. As with exposure to high concentrations of any mist, minimal irritation of the respiratory tract may occur. Not known significant effects or critical hazards.
Skin contact	: Not an irritant. Not a dermal sensitizer. Not known significant effects or critical hazards.
Eye contact	: Not an irritant. Not known significant effects or critical hazards.
Potential chronic health effects	: CARCINOGENIC EFFECTS: Not classified or listed by IARC, NTP, OSHA and ACGIH. MUTAGENIC EFFECTS: Not mutagenic in Ames test. TERATOGENIC EFFECTS: Not available.

---

### 12. Ecological information

Mobility	: Not available.
Other information	: Decomposition products may include the following materials: carbon oxides (CO, CO <sub>2</sub> ). Some metallic oxides.

---

### 13. Disposal considerations

Waste disposal	: This product is not a listed hazardous waste in accordance with Federal Regulation 40 CFR Part 261. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to local, state and federal regulations.
----------------	---

---

### 14. Transport information

The chemicals in the formulations are not restricted or regulated by IATA, ICAO, US DOT, ADR/RID, AND, IMDG and is safe to air transport.

---

## Safety Data Sheet

---

### 15. Regulatory information

#### United States

- TSCA (USA) : All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory, have been registered, or are exempt.
- SARA / EPCRA (USA) : None of the ingredients in this product has a final reportable quantity (RQ) under Emergency Planning and Community Right-to Know Act (EPCRA)- Section 302:Extremely Hazardous Substances (EHS) or notification requirements for EHS under Section 304.
- California Proposition 65 : This product contains no known materials at levels which the State of California has found to cause cancer, birth defects or other reproductive harm - California Proposition 65.

#### International regulations lists

- EINECS (Europe) : All ingredients are listed on the European Inventory of Existing Commercial Substances(EINECS) list, have been registered on the European List of New Chemical Substances(ELINCS), or are exempt.
- ENCS (Japan) : All ingredients are listed on the Japanese Existing and New Chemical Substances (ENCS) list, have been registered, or are exempt.
- AICS (Australia) : All ingredients are listed in Australian Inventory of Chemical Substances (AICS), have been registered, or are exempt.
- PICCS (Philippines) : All ingredients are listed on the Philippines Inventory (PICCS) or are exempt.
- KECL (Korea) : All ingredients are listed on the Korean Existing Chemicals List (ECL), have been registered, or are exempt.
- IECSC (China) : All ingredients are listed on the Chinese Inventory (IECSC) or are exempt.
- WHMIS (Canada) : Not controlled under WHMIS (Canada).
- DSL/NDSL(Canada) : All ingredients are listed on the Canadian Domestic Substances List (DSL), have been registered on the Non-Domestic Substances List (NDSL), or are exempt.
- Mexico Classification : Health: 1 Flammability: 0 Reactivity: 0

## Safety Data Sheet

---

---

### 16. Other information

Revision comments	: No significant revisions to health and safety information.
References	: ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. -29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" – Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

#### 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. Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

## Safety Data Sheet

---

### 1. Product and company identification

Description : Magenta ink  
Part numbers : 53492  
Recommended Use : Ink for Ink Jet Printer  
Manufacturer : Primera Technology  
Address : Two Carlson Parkway North, Suite 375, Plymouth, MN 55447  
Tel : 763-475-6676  
Information about the product : Product Environmental Office  
Fax : 763-475-6677  
e-mail : support@primera.com  
Emergency phone number For Hazardous Materials Incident Spill, Leak, Fire, Exposure, or Accident  
+1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

---

### 2. Hazards identification

Classification under OSHA HCS : Not classified  
Label element  
Hazard symbol : None  
Signal word : None  
Hazard statements : None  
Precautionary statements : None  
Other hazards which do not result in classification : None

---

### 3. Composition/information on ingredients

Substance/Mixture: Mixture

Name	%	CAS No.	OSHA PEL	ACGIH TLV
Water	55 – 70	7732-18-5	None	None
Water Soluble Organic Solvent	25 – 40	Trade secret	None	None
Dye	1 – 4	Trade secret	None	None

---

## **Safety Data Sheet**

---

---

### **4. First-aid measures**

#### Description of first aid measures

Inhalation	: If symptoms, such as shortness of breath or persistent coughing are experienced, remove source of contamination and move individual to fresh air. If symptoms persist, seek medical attention.
Skin contact	: Wash with soap and water. Should irritation occur, seek medical attention. Should irritation occur, seek medical attention.
Eye contact	: Do not rub eyes. Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. If irritation develops and persists, seek medical attention.
Ingestion	: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

#### Most important symptoms and effects, both acute and delayed

Inhalation	: None under normal use.
Skin contact	: None under normal use.
Eye contact	: None under normal use. May cause slight irritation.
Ingestion	: None under normal use.
Chronic Effects	: None under normal use.

#### Indication of any immediate attention and special treatment needed

: No specific antidote.

---

### **5. Fire-fighting measures**

Flash point	: > 200°C
Auto-ignition temperature	: None known.
Flammable limits	: None known.
Extinguishing media	
Suitable media	: Carbon dioxide, water spray or fog, dry chemical or foam
Unsuitable media	: None
Hazardous combustion products	: Carbon monoxide, carbon dioxide, unidentified organics
Special exposure hazards	: None known.
Special protective equipment for fire-fighters	: Fire fighters should wear full protective clothing, including self-contained breathing apparatus



## **Safety Data Sheet**

---

---

### **6. Accidental release measures**

- Personal precautionary : Wear latex, vinyl, or nitrile gloves to prevent staining of skin.
- Environmental precautions : Unless specifically permitted for disposal, keep waste out of sewers, watersheds, and waterways. Disposal is subject to national, state, regional, or provincial regulations
- Procedure for cleaning/  
Absorption : Small spill : Absorb small spills with cloth or paper towels or other suitable material. Product waste and emptied containers should be disposed of in accordance with local waste regulations. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

---

### **7. Handling and storage**

- Handling : Keep from freezing.
- Storage : Store in a cool, dry place. Store away from oxidizing material.

---

### **8. Exposure controls/personal protection**

- Engineering controls : Local exhaust ventilation as necessary to maintain exposures to within applicable limits.
- Respiratory protection : Not required.
- Gloves : Latex, PVC, neoprene, or nitrile gloves are recommended to prevent staining of skin.
- Skin protection : Not required.
- Eyes : Safety glasses with side shields.

## **Safety Data Sheet**

---

---

### **9. Physical and chemical properties**

Physical state	: Liquid.
Color	: Magenta
Odor	: Faint odor.
Odor threshold	: No data available
pH	: No data available
Melting Point	: No data available
Freezing point	: No data available
Initial boiling point	: No data available
Boiling range	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability(solid/gas)	: No data available
Upper/lower flammability	: No data available
Explosive limits	: No data available
Vapor pressure	: No data available
Vapor density	: No data available
Specific Gravity	: Approximately 1.0
Solubility	: Miscible in water
Partition coefficient	: No data available
Auto ignition temp	: No data available
Viscosity	: No data available
Oxidizing properties	: No data available

---

### **10. Stability and reactivity**

Reactivity	: None
Chemical stability	: Stable
Possibility of Hazardous	: None
Reactions	
Conditions to avoid	: None known.
Incompatible materials	: None known
Hazardous decomposition products	: Carbon monoxide, carbon dioxide, unidentified organics.
Hazardous polymerization	: Will not occur.
Additional guidelines	: None.

## **Safety Data Sheet**

---

---

### **11. Toxicological information**

#### Information on toxicological effects

Acute toxicity	: No data available
Skin corrosion/irritation	: No data available.
Serious eye damage/eye irritation	: No data available
Sensitization	: No data available
Germ cell mutagenicity	: No data available
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
Specific target organ toxicity – single exposure	: No data available
Specific target organ toxicity – repeated exposure	: No data available
Aspiration hazard	: No data available
Other information	: No data available

---

### **12. Ecological information**

Ecotoxicity	: No data available
Persistence and degradability	: No data available
Bio accumulative potential	: No data available
Mobility in soil	: No data available
PBT and vPvB assessment	: No data available
Other information	: Decomposition products may include the following materials: carbon oxides (CO, CO <sub>2</sub> ). Some metallic oxides.

---

### **13. Disposal considerations**

Waste disposal	: This product is not a listed hazardous waste in accordance with Federal Regulation 40 CFR Part 261. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to local, state and federal regulations.
----------------	---

---

## Safety Data Sheet

---

### 14. Transport information

UN number	: Not applicable
Proper shipping name	: Not applicable
Transport hazard class	: Not applicable
Packing group	: Not applicable
Environmental hazards	: Not applicable
Special precautions	: Not applicable
Bulk transport Annex II of MARPOL 73/78 and IBC code	: Not applicable

---

### 15. Regulatory information

#### United States

TSCA (USA)	: All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory, have been registered, or are exempt.
SARA / EPCRA (USA)	: None of the ingredients in this product has a final reportable quantity (RQ) under Emergency Planning and Community Right-to Know Act (EPCRA)- Section 302:Extremely Hazardous Substances (EHS) or notification requirements for EHS under Section 304.
California Proposition 65	: This product contains no known materials at levels which the State of California has found to cause cancer, birth defects or other reproductive harm – California Proposition 65.

#### International regulations lists

PICCS (Philippines)	: All ingredients are listed on the Philippines Inventory (PICCS) or are exempt.
---------------------	--

## **Safety Data Sheet**

---

---

### **16. Other information**

- Revision comments : No significant revisions to health and safety information.
- References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. -29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" – Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

#### 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. Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

---

---

## Safety Data Sheet

---

---

### 1. Product and company identification

Description : Yellow Ink  
Part numbers : 53492  
Recommended Use : Ink for Ink Jet Printer  
Manufacturer : Primera Technology  
Address : Two Carlson Parkway North, Suite 375, Plymouth, MN 55447  
Tel : 763-475-6676  
Information about the product : Product Environmental Office  
Fax : 763-475-6677  
e-mail : support@primera.com  
Emergency phone number For Hazardous Materials Incident Spill, Leak, Fire, Exposure, or Accident  
+1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

---

---

### 2. Hazards identification

Classification under OSHA HCS : Not classified  
Label element  
Hazard symbol : None  
Signal word : None  
Hazard statements : None  
Precautionary statements : None  
Other hazards which do not result in classification : None

---

---

### 3. Composition/information on ingredients

Substance/Mixture: Mixture

Name	%	CAS No.	OSHA PEL	ACGIH TLV
Water	60 - 75	7732-18-5	None	None
Water Soluble Organic Solvent	15 – 30	Trade secret	None	None
Dye	5 – 10	Trade secret	None	None

---

## **Safety Data Sheet**

---



---

### **4. First-aid measures**

Description of first aid measures

Inhalation	: If symptoms, such as shortness of breath or persistent coughing are experienced, remove source of contamination and move individual to fresh air. If symptoms persist, seek medical attention.
Skin contact	: Wash with soap and water. Should irritation occur, seek medical attention. Should irritation occur, seek medical attention.
Eye contact	: Do not rub eyes. Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. If irritation develops and persists, seek medical attention.
Ingestion	: Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Most important symptoms and effects, both acute and delayed

Inhalation	: None under normal use.
Skin contact	: None under normal use.
Eye contact	: None under normal use. May cause slight irritation.
Ingestion	: None under normal use.
Chronic Effects	: None under normal use.

Indication of any immediate attention and special treatment needed

: No specific antidote.

---

### **5. Fire-fighting measures**

Flash point	: > 200°C
Auto-ignition temperature	: None known.
Flammable limits	: None known.
Extinguishing media	
Suitable media	: Carbon dioxide, water spray or fog, dry chemical or foam
Unsuitable media	: None
Hazardous combustion products	: Carbon monoxide, carbon dioxide, unidentified organics
Special exposure hazards	: None known.
Special protective equipment for fire-fighters	: Fire fighters should wear full protective clothing, including self-contained breathing apparatus

## **Safety Data Sheet**

---

---

### **6. Accidental release measures**

- Personal precautionary : Wear latex, vinyl, or nitrile gloves to prevent staining of skin.
- Environmental precautions : Unless specifically permitted for disposal, keep waste out of sewers, watersheds, and waterways. Disposal is subject to national, state, regional, or provincial regulations
- Procedure for cleaning/  
Absorption : Small spill : Absorb small spills with cloth or paper towels or other suitable material. Product waste and emptied containers should be disposed of in accordance with local waste regulations. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

---

### **7. Handling and storage**

- Handling : Keep from freezing.
- Storage : Store in a cool, dry place. Store away from oxidizing material.

---

### **8. Exposure controls/personal protection**

- Engineering controls : Local exhaust ventilation as necessary to maintain exposures to within applicable limits.
- Respiratory protection : Not required.
- Gloves : Latex, PVC, neoprene, or nitrile gloves are recommended to prevent staining of skin.
- Skin protection : Not required.
- Eyes : Safety glasses with side shields.



## Safety Data Sheet

---

---

### 9. Physical and chemical properties

Physical state	: Liquid.
Color	: Yellow
Odor	: Faint odor.
Odor threshold	: No data available
pH	: No data available
Melting Point	: No data available
Freezing point	: No data available
Initial boiling point	: No data available
Boiling range	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Flammability(solid/gas)	: No data available
Upper/lower flammability	: No data available
Explosive limits	: No data available
Vapor pressure	: No data available
Vapor density	: No data available
Specific Gravity	: Approximately 1.0
Solubility	: Miscible in water
Partition coefficient	: No data available
Auto ignition temp	: No data available
Viscosity	: No data available
Oxidizing properties	: No data available

---

### 10. Stability and reactivity

Reactivity	: None
Chemical stability	: Stable
Possibility of Hazardous	: None
Reactions	
Conditions to avoid	: None known.
Incompatible materials	: None known
Hazardous decomposition products	: Carbon monoxide, carbon dioxide, unidentified organics.
Hazardous polymerization	: Will not occur.
Additional guidelines	: None.

## **Safety Data Sheet**

---

---

### **11. Toxicological information**

#### Information on toxicological effects

Acute toxicity	: No data available
Skin corrosion/irritation	: No data available.
Serious eye damage/eye irritation	: No data available
Sensitization	: No data available
Germ cell mutagenicity	: No data available
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
Specific target organ toxicity – single exposure	: No data available
Specific target organ toxicity – repeated exposure	: No data available
Aspiration hazard	: No data available
Other information	: No data available

---

### **12. Ecological information**

Ecotoxicity	: No data available
Persistence and degradability	: No data available
Bio accumulative potential	: No data available
Mobility in soil	: No data available
PBT and vPvB assessment	: No data available
Other information	: Decomposition products may include the following materials: carbon oxides (CO, CO <sub>2</sub> ). Some metallic oxides.

---

### **13. Disposal considerations**

Waste disposal	: This product is not a listed hazardous waste in accordance with Federal Regulation 40 CFR Part 261. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste. Disposal is subject to local, state and federal regulations.
----------------	---

## Safety Data Sheet

---

---

### 14. Transport information

UN number	: Not applicable
Proper shipping name	: Not applicable
Transport hazard class	: Not applicable
Packing group	: Not applicable
Environmental hazards	: Not applicable
Special precautions	: Not applicable
Bulk transport Annex II of MARPOL 73/78 and IBC code	: Not applicable

---

### 15. Regulatory information

#### United States

TSCA (USA)	: All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory, have been registered, or are exempt.
SARA / EPCRA (USA)	: None of the ingredients in this product has a final reportable quantity (RQ) under Emergency Planning and Community Right-to Know Act (EPCRA)- Section 302:Extremely Hazardous Substances (EHS) or notification requirements for EHS under Section 304.
California Proposition 65	: This product contains no known materials at levels which the State of California has found to cause cancer, birth defects or other reproductive harm – California Proposition 65.

#### International regulations lists

PICCS (Philippines)	: All ingredients are listed on the Philippines Inventory (PICCS) or are exempt.
---------------------	--

## Safety Data Sheet

---

---

### 16. Other information

- Revision comments : No significant revisions to health and safety information.
- References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. -29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" – Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994.

#### 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. Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.