Red Evidence Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 01/05/2015 Supersedes:01/26/2011 Version:

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name. : Red Evidence Marker

Product code : EMR1

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

Use of the substance/preparation : Crime Scene Investigation

1.3. Details of the supplier of the safety data sheet

SIRCHIE Finger Print Laboratories
100 Hunter Place
27596 Youngsville, NC - USA
T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181
http://www.sirchie.com

1.4. Emergency telephone number

Emergency number : 1.800.424.9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 2	H225
Acute Tox. 4 (Dermal)	H312
Skin Irrit. 2	H315
Carc. 1B	H350

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS02 GHS07 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H225 - Highly flammable liquid and vapor
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H350 - May cause cancer

Precautionary statements (GHS-US) :
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P264 - Wash all exposed skin thoroughly after handling.
P280 - Wear eye protection, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P308+P313 - IF exposed or concerned: Get medical advice/attention
P312 - Call a POISON CENTER/doctor/…/if you feel unwell
P321 - Specific treatment (see information on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use CO2, dry chemical, foam, water spray for extinction.
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification (GHS-US)
xylene, mixture of isomers	(CAS No.)1330-20-7	60 - 100	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315
ethylbenzene	(CAS No.)100-41-4	10 - 30	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332
Residues (petroleum), catalytic reformer fractionator	(CAS No.)64741-67-9	1 - 5	Carc. 1B, H350

SECTION 4: First aid measures

4.1. Description of 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 : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 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

Reactivity : No reactivity hazard other than the effects described in sub-sections below.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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.

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.

SECTION 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 eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylbenzene (100-41-4)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm

xylene, mixture of isomers (1330-20-7)		
USA ACGIH	ACGIH TWA (ppm)	100 ppm
USA ACGIH	ACGIH STEL (ppm)	150 ppm

8.2. Exposure controls

Personal protective equipment : Gloves. Safety glasses.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear approved mask.

Other information : When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Red.
Odor	:	hydrocarbon-like odor.
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Self ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Insoluble in water.
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No reactivity hazard other than the effects described in sub-sections below.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful in contact with skin.

ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat; Other; Experimental value,Rat; Other; Experimental value,Rat; Other; Experimental value)
LD50 dermal rabbit	15415 mg/kg (15432 mg/kg; Rabbit; Rabbit; Experimental value; Other,15432 mg/kg; Rabbit; Rabbit; Experimental value; Other,15432 mg/kg; Rabbit; Rabbit; Experimental value; Other)
LC50 inhalation rat (mg/l)	17.8 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	4000 ppm/4h (Rat)

xylene, mixture of isomers (1330-20-7)	
LD50 oral rat	3523 - 8600 mg/kg (3523 mg/kg bodyweight; >4000 mg/kg bodyweight; Rat; Rat; Rat; Experimental value; Experimental value)
LD50 dermal rabbit	> 4200 mg/kg body weight (Rabbit; Experimental value,Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	29 mg/l/4h (27.57 mg/l/4h; Rat; Rat; Experimental value; Experimental value,27.57 mg/l/4h; Rat; Rat; Experimental value; Experimental value)

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classifiedBased on available data, the classification criteria are not met

Carcinogenicity : May cause cancer.

ethylbenzene (100-41-4)	
IARC group	2B

xylene, mixture of isomers (1330-20-7)	
IARC group	3

Reproductive toxicity : Not classifiedBased on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classifiedBased on available data, the classification criteria are not met

Aspiration hazard : Not classifiedBased on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

ethylbenzene (100-41-4)	
LC50 fish 1	9.09 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	77 mg/l (24 h; Daphnia magna)
EC50 other aquatic organisms 1	48 mg/l (72 h; Scenedesmus subspicatus)
LC50 fish 2	4.2 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	75 mg/l (48 h; Daphnia magna)
TLM fish 1	29 ppm (96 h; Lepomis macrochirus; HARD WATER)
TLM fish 2	42.3 mg/l (96 h; Pimephales promelas)
TLM other aquatic organisms 1	10 - 100,96 h
Threshold limit algae 1	> 160 mg/l (192 h; Scenedesmus quadricauda; TOXICITY TEST)
Threshold limit algae 2	33 mg/l (192 h; Microcystis aeruginosa; TOXICITY TEST)

xylene, mixture of isomers (1330-20-7)	
LC50 fish 1	13.5 mg/l (96 h; Lepomis macrochirus; LETHAL)
EC50 Daphnia 1	150 mg/l (24 h; Daphnia magna)
LC50 fish 2	3.77 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	7.4 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	72 mg/l (336 h; Selenastrum capricornutum; GROWTH)
Threshold limit algae 2	10 mg/l (72 h; Skeletonema costatum)

12.2. Persistence and degradability

Red Evidence Marker	
Persistence and degradability	Not established.

ethylbenzene (100-41-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	1.44 g O^2/g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O^2/g substance
ThOD	3.17 g O^2/g substance
BOD (% of ThOD)	(20 day(s)) 45.4

xylene, mixture of isomers (1330-20-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photolysis in the air.

12.3. Bioaccumulative potential

Red Evidence Marker	
Bioaccumulative potential	Not established.

ethylbenzene (100-41-4)	
BCF fish 1	20 (Oncorhynchus kisutch)
BCF fish 2	15 - 79 (Carassius auratus)
BCF other aquatic organisms 1	4.68 (Lamellibranchiata)
Log Pow	3.15 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

xylene, mixture of isomers (1330-20-7)	
BCF fish 1	15 8 weeks; Salmo gairdneri (Oncorhynchus mykiss)
BCF fish 2	7 - 26 (8 weeks; Oncorhynchus mykiss)
Log Pow	3.2 (20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

ethylbenzene (100-41-4)	
Surface tension	0.029 N/m

xylene, mixture of isomers (1330-20-7)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Red Evidence Marker
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

Red Evidence Marker()	
U.S. - California - Proposition 65 - Carcinogens List	Yes

SECTION 16: Other information

Indication of changes : Revision - See : *.

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging. Keep in tightly closed container. Keep cool and dry. Avoid all ignition sources - heat, open flame, sparks. Avoid incompatible materials. Avoid dust creation and accumulation. Avoid inhalation and ingestion. Avoid contact with eyes. Wash thoroughly after handling.

Other information : None.

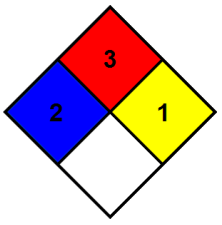
Full text of H-phrases: see section 16:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Carc. 1B	Carcinogenicity Category 1B
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	skin corrosion/irritation Category 2
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H312	Harmful in contact with skin
H315	Causes skin irritation
H332	Harmful if inhaled
H350	May cause cancer

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard

Physical : 1 Slight Hazard

Personal Protection : A

SDS US (GHS HazCom 2012)

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