Luminol4, 8 Luminol Blood Detection

Safety Data Sheet

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

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

1.1. Product identifier

Product form : Mixture

Product name : Luminol4, 8 Luminol Blood Detection

Product code : Luminol4, 8

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

Use of the substance/mixture : Laboratory chemical

1.3. Details of the supplier of the safety data sheet

SIRCHIE Finger Print Laboratories
100 Hunter Place
Youngsville, NC 27596 - 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)

Skin Corr. 1A H314
Repr. 1B H360

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS05 GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
H360 - systemic toxicity (Dermal, Inhalation, oral)

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash ... thoroughly after handling
P280 - Wear eye protection, protective gloves
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P310 - Immediately call a poison center/doctor/…
P321 - Specific treatment (see ... on this label)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to local, regionsl and national regulations

2.3. Other hazards

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

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
sodium carbonate	(CAS No) 497-19-8	<= 86	Skin Corr. 1A, H314 Eye Irrit. 2A, H319
sodiumperborate (NaBO3), tetrahydrate, containing < 0.1 % (w/w) of particles with an aerodynamic diameter < 50 µm	(CAS No) 10486-00-7	<= 12	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Repr. 1B, H360 STOT SE 3, H335
sodium 5-amino-2,3-dihydro-1,4-phthalazinedione	(CAS No) 20666-12-0	< 2	Not classified

Full text of H-phrases: see section 16

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 : Allow victim to breathe fresh air. 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 data available.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering 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 : On land, sweep or shovel into suitable containers. Minimize generation of dust. 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 eating, drinking or smoking 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

Luminol4, 8 Luminol Blood Detection	
ACGIH	Not applicable
OSHA	Not applicable

sodium 5-amino-2,3-dihydro-1,4-phthalazinedione (20666-12-0)	
ACGIH	Not applicable
OSHA	Not applicable

sodium carbonate (497-19-8)	
ACGIH	Not applicable
OSHA	Not applicable

sodiumperborate (NaBO3), tetrahydrate, containing < 0.1 % (w/w) of particles with an aerodynamic diameter < 50 µm (10486-00-7)		
ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
ACGIH	ACGIH STEL (mg/m³)	6 mg/m³
OSHA	Not applicable	

8.2. Exposure controls

Personal protective equipment : Gas mask. Gloves. Safety glasses. Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Powders.

Color : white Colorless

Odor : odorless characteristic

Odor threshold : No data available

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	No data available
Relative density	:	No data available
Relative vapor density at 20 °C	:	No data available
Solubility	:	Soluble in water. Water: Solubility in water of component(s) of the mixture : • : 22 g/100ml
Log Pow	:	No data available
Log Kow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions. 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

May react with aluminium. Strong acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced. fume.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

sodium carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Experimental value)
ATE US (oral)	2800.000 mg/kg body weight

sodiumperborate (NaBO3), tetrahydrate, containing < 0.1 % (w/w) of particles with an aerodynamic diameter < 50 µm (10486-00-7)	
LD50 oral rat	1200 mg/kg (Rat)
ATE US (oral)	1200.000 mg/kg body weight

Skin corrosion/irritation	:	Causes severe skin burns and eye damage.
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met

Carcinogenicity	:	Not classified
Reproductive toxicity	:	systemic toxicity (Dermal, Inhalation, oral). Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Potential Adverse human health effects and symptoms	:	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

sodium carbonate (497-19-8)	
LC50 fish 1	300 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 1	< 424 mg/l (48 h; Daphnia magna)
EC50 other aquatic organisms 1	14 mg/l (168 h; Plankton)
LC50 fish 2	740 mg/l (96 h; Gambusia affinis)
EC50 Daphnia 2	265 mg/l (48 h; Daphnia magna)
TLM fish 1	300 ppm (96 h; Lepomis macrochirus)
TLM other aquatic organisms 1	500 ppm (96 h; Daphnia magna)
Threshold limit algae 1	242 mg/l (5 days; Algae)

sodiumperborate (NaBO3), tetrahydrate, containing < 0.1 % (w/w) of particles with an aerodynamic diameter < 50 µm (10486-00-7)	
LC50 fish 1	51 mg/l (96 h; Brachydanio rerio; Monohydrate)
EC50 Daphnia 1	11 mg/l (48 h; Daphnia magna; Monohydrate)
EC50 other aquatic organisms 1	26.8 mg/l (96 h; Scenedesmus subspicatus; Monohydrate)
Threshold limit algae 2	< 3.5 mg/l (96 h; Scenedesmus subspicatus; Monohydrate)

12.2. Persistence and degradability

Luminol4, 8 Luminol Blood Detection	
Persistence and degradability	Not established.

sodium 5-amino-2,3-dihydro-1,4-phthalazinedione (20666-12-0)	
Persistence and degradability	Biodegradability in water: no data available.

sodium carbonate (497-19-8)	
Persistence and degradability	Biodegradability: not applicable. Low potential for adsorption in soil.
ThOD	Not applicable (inorganic)

sodiumperborate (NaBO3), tetrahydrate, containing < 0.1 % (w/w) of particles with an aerodynamic diameter < 50 µm (10486-00-7)	
Persistence and degradability	Biodegradability: not applicable. Hydrolysis in water.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Luminol4, 8 Luminol Blood Detection	
Bioaccumulative potential	Not established.

sodium 5-amino-2,3-dihydro-1,4-phthalazinedione (20666-12-0)	
Bioaccumulative potential	No bioaccumulation data available.

sodium carbonate (497-19-8)	
Log Pow	-6.19 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

sodiumperborate (NaBO3), tetrahydrate, containing < 0.1 % (w/w) of particles with an aerodynamic diameter < 50 µm (10486-00-7)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

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

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

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

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

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

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Repr.Cat.2; R61

Xi; R36

Full text of R-phrases: see section 16

National regulations

No additional information available

15.3. US State regulations

No additional information available

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.

Other information : None.

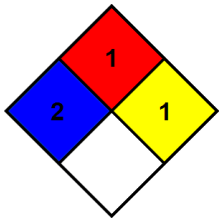
Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Repr. 1B	Reproductive toxicity Category 1B
Skin Corr. 1A	Skin corrosion/irritation Category 1A
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child

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 : 1 - Must be preheated before ignition can occur.

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 : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Personal Protection : F

F - Safety glasses, Gloves, Synthetic apron, Dust respirator

SDS US (GHS HazCom 2012)

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