



VS615 Three-Day Transparent Detection Fluid, Transparent/Brown

Safety Data Sheet

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

*** DRAFT ***

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

1.1. Product identifier

Product form : Mixture
Product name : VS615 Three-Day Transparent Detection Fluid, Transparent/Brown
Product code : VS615

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

Use of the substance/mixture : Crime Scene Investigation

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)

Flam. Liq. 2 H225
Acute Tox. 4 (Oral) H302
Skin Corr. 1B H314
Carc. 1A H350

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS02

GHS05

GHS07

GHS08

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
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/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ventilating/lighting/... equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe fume, mist, spray, vapors
P264 - Wash all exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear eye protection, protective gloves
P301+P312 - If swallowed: Call a poison center/doctor/... if you feel unwell
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

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P308+P313 - If exposed or concerned: Get medical advice/attention
P310 - Immediately call a poison center/doctor/...
P321 - Specific treatment (see information on this label)
P330 - Rinse mouth
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use ... to extinguish
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)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
ethanol	(CAS No) 64-17-5	0 - 100	Flam. Liq. 2, H225 Carc. 1A, H350
glycerol	(CAS No) 56-81-5	0 - 100	Not classified
silicon dioxide, amorphous	(CAS No) 7631-86-9	0 - 100	Not classified
AQUA	(CAS No) 7732-18-5	0 - 100	Not classified
silver nitrate	(CAS No) 7761-88-8	0 - 100	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314

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.

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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 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

VS615 Three-Day Transparent Detection Fluid, Transparent/Brown		
ACGIH	Not applicable	
OSHA	Not applicable	
ethanol (64-17-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
glycerol (56-81-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
silicon dioxide, amorphous (7631-86-9)		
ACGIH	Not applicable	
OSHA	Not applicable	
silver nitrate (7761-88-8)		
ACGIH	ACGIH TWA (mg/m³)	0.01 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	0.01 mg/m³
AQUA (7732-18-5)		
ACGIH	Not applicable	
OSHA	Not applicable	

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8.2. Exposure controls

Personal protective equipment : Gas mask. Gloves. Safety glasses.



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 : Liquid
Appearance : Clear, colorless liquid.
Color : Colorless
Odor : Alcohol odour
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 :
• : • : 100 g/100ml • : 0.15 g/100ml • : 144 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 recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

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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 : Oral: Harmful if swallowed.

VS615 Three-Day Transparent Detection Fluid, Transparent/Brown	
ATE US (oral)	1173.000 mg/kg body weight
ethanol (64-17-5)	
LD50 oral rat	10740 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit; Literature study)
ATE US (oral)	10740.000 mg/kg body weight
glycerol (56-81-5)	
LD50 oral rat	27200 mg/kg (Rat; Experimental value)
LC50 inhalation rat (mg/l)	> 2.75 mg/l/4h (Rat; Experimental value)
ATE US (oral)	27200.000 mg/kg body weight
silicon dioxide, amorphous (7631-86-9)	
LD50 oral rat	> 10000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
silver nitrate (7761-88-8)	
LD50 oral rat	1173 mg/kg (Rat)
ATE US (oral)	1173.000 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 : May cause cancer.

ethanol (64-17-5)	
IARC group	1 - Carcinogenic to humans
silicon dioxide, amorphous (7631-86-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
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

ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	9300 mg/l (48 h; Daphnia magna)

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ethanol (64-17-5)	
LC50 fish 2	13000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	10800 mg/l (24 h; Daphnia magna)
Threshold limit other aquatic organisms 1	65 mg/l (72 h; Protozoa)
Threshold limit algae 1	1450 mg/l (192 h; Microcystis aeruginosa; Growth rate)
Threshold limit algae 2	5000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)
glycerol (56-81-5)	
LC50 fish 1	54000 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Lethal)
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna; Locomotor effect)
LC50 fish 2	> 1000 mg/l (96 h; Pisces)
TLM fish 1	> 1000 ppm (96 h; Pisces)
TLM other aquatic organisms 1	> 1000 ppm (96 h)
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	> 10000 mg/l (8 days; Scenedesmus quadricauda; Turbid water)
Threshold limit algae 2	2900 mg/l (192 h; Microcystis aeruginosa; Toxicity test)
silicon dioxide, amorphous (7631-86-9)	
LC50 fish 1	> 10000 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna)
Threshold limit algae 2	60 mg/l (72 h; Selenastrum capricornutum; Growth rate)
silver nitrate (7761-88-8)	
LC50 fish 1	0.0039 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	0.0006 mg/l (48 h; Daphnia magna; Locomotor effect)
LC50 fish 2	0.006 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	0.006 mg/l (48 h; Crangon sp.)
Threshold limit algae 1	0.0007 mg/l (Microcystis aeruginosa; Toxicity test)
Threshold limit algae 2	0.0095 mg/l (Scenedesmus quadricauda; Toxicity test)

12.2. Persistence and degradability

VS615 Three-Day Transparent Detection Fluid, Transparent/Brown	
Persistence and degradability	Not established.
ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.70 g O ₂ /g substance
ThOD	2.10 g O ₂ /g substance
BOD (% of ThOD)	0.43 % ThOD
glycerol (56-81-5)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.87 g O ₂ /g substance
Chemical oxygen demand (COD)	1.16 g O ₂ /g substance
ThOD	1.217 g O ₂ /g substance
BOD (% of ThOD)	0.71 % ThOD
silicon dioxide, amorphous (7631-86-9)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
silver nitrate (7761-88-8)	
Persistence and degradability	Biodegradability: not applicable.

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silver nitrate (7761-88-8)	
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

VS615 Three-Day Transparent Detection Fluid, Transparent/Brown	
Bioaccumulative potential	Not established.
ethanol (64-17-5)	
BCF fish 1	1 (72 h; Cyprinus carpio)
Log Pow	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
glycerol (56-81-5)	
Log Pow	-1.75 (Experimental value; Equivalent or similar to OECD 107)
Bioaccumulative potential	Bioaccumulation: not applicable.
silicon dioxide, amorphous (7631-86-9)	
Bioaccumulative potential	Not bioaccumulative.
silver nitrate (7761-88-8)	
BCF fish 1	11 - 19 (Micropterus salmoides; Chronic)
BCF fish 2	15 - 150 (Lepomis macrochirus; Chronic)
Log Pow	0.19 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

ethanol (64-17-5)	
Surface tension	0.022 N/m (20 °C)
glycerol (56-81-5)	
Surface tension	0.0634 N/m (20 °C; 1000 g/l)

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

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Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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Listed on United States SARA Section 313

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]

No additional information available

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

F; R11

O; R8

C; R34

N; R50/53

Full text of R-phrases: see section 16

National regulations

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Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

VS615 Three-Day Transparent Detection Fluid, Transparent/Brown()

U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

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

: This Safety Data Sheet has been established in accordance with the applicable European Union legislation.

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Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 1A	Carcinogenicity Category 1A
Flam. Liq. 2	Flammable liquids Category 2
Ox. Sol. 2	Oxidizing solids Category 2
Skin Corr. 1B	Skin corrosion/irritation Category 1B
H225	Highly flammable liquid and vapor
H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H350	May cause cancer

NFPA health hazard

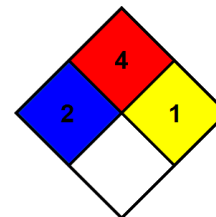
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.

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

: 4 Severe Hazard - Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

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

: G

G - Safety glasses, Gloves, Vapor respirator

SDS US (GHS HazCom 2012)

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.