

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

1.1. Product identifier

Product form : Mixture
Product name : 20 ppm SV Test Mix
Product code : AL0-130063
Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Laboratory Use
Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Phenova
6390 Joyce Dr. Suite 100
80403 Golden, CO - United States
T 1-866-942-2978 - F 1-866-283-0269
info@phenova.com - www.phenova.com

1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924
ChemTel Assistance (International) +1 813-248-0585

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2 H225
Carc. 2 H351
Aquatic Chronic 3 H412

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

Carc. Cat. 3; R40
F; R11
R52/53
Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

GHS08

Signal word (CLP) : Danger

Hazardous ingredients : Methylene Chloride

Hazard statements (CLP) : H225 - Highly flammable liquid and vapor
H351 - Suspected of causing cancer
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

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P233 - Keep container tightly closed
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P308+P313 - IF exposed or concerned: Get medical advice/attention
P403+P235 - Store in a well-ventilated place. Keep cool

No labeling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|--|----------|--|
| Methylene Chloride (Component) | (CAS No) 75-09-2 (EC no) 200-838-9 (EC index no) 602-004-00-3 | 99.98675 | Carc. 2, H351 |
| 4,4'-DDT (Component) | (CAS No) 50-29-3 (EC no) 200-024-3 (EC index no) 602-045-00-7 | 0.00265 | Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) |
| pyridine (Component) substance with a Community workplace exposure limit | (CAS No) 110-86-1 (EC no) 203-809-9 (EC index no) 613-002-00-7 | 0.00265 | Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 |

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 exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

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

No additional information available

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 : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

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.

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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. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up in absorbent material. Collect spillage.

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

- Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.
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. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.
Incompatible materials : Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

4,4'-DDT (50-29-3)

| | | |
|----------|-------------------------------------|---------------------|
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 1 mg/m ³ |
|----------|-------------------------------------|---------------------|

8.2. Exposure controls

- Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.
Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



- Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.
Eye protection : Chemical goggles or safety glasses. Safety glasses.
Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.
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
Color : Colorless.
Odor : characteristic.
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available

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| | |
|---------------------------|-------------------------------------|
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Highly flammable liquid and vapor |
| Relative density | : No data available |
| Solubility | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosion limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| 4,4'-DDT (50-29-3) | |
|-------------------------------------|---|
| LD50 oral rat | 87 mg/kg |
| LD50 dermal rabbit | 300 mg/kg |
| ATE CLP (oral) | 87.000 mg/kg body weight |
| ATE CLP (dermal) | 300.000 mg/kg body weight |
| pyridine (110-86-1) | |
| LD50 oral rat | > 891 mg/kg (Rat) |
| LD50 dermal rabbit | 1120 mg/kg (Rabbit) |
| ATE CLP (oral) | 500.000 mg/kg body weight |
| ATE CLP (dermal) | 1120.000 mg/kg body weight |
| ATE CLP (gases) | 4500.000 ppmV/4h |
| ATE CLP (vapors) | 11.000 mg/l/4h |
| ATE CLP (dust, mist) | 1.500 mg/l/4h |
| Methylene Chloride (75-09-2) | |
| LD50 oral rat | > 2000 mg/kg (Rat; Literature study) |
| LD50 dermal rabbit | > 2000 mg/kg (Rabbit; Literature study) |

| | |
|--|--|
| Skin corrosion/irritation | : Not classified Based on available data, the classification criteria are not met |
| Serious eye damage/irritation | : Not classified Based on available data, the classification criteria are not met |
| Respiratory or skin sensitization | : Not classified Based on available data, the classification criteria are not met |
| Germ cell mutagenicity | : Not classified Based on available data, the classification criteria are not met |
| Carcinogenicity | : Suspected of causing cancer. May cause cancer |
| Reproductive toxicity | : Not classified Based on available data, the classification criteria are not met |
| Specific target organ toxicity (single exposure) | : Not classified Based on available data, the classification criteria are not met |

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| | |
|---|--|
| Specific target organ toxicity (repeated exposure) | : Not classified Based on available data, the classification criteria are not met |
| Aspiration hazard | : Not classified Based 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

Ecology - water : Harmful to aquatic life with long lasting effects.

| 4,4'-DDT (50-29-3) | |
|--------------------------------|---|
| LC50 fish 1 | 0.01 mg/l Pimephales promelas (fathead minnow) 96 h |
| LC50 other aquatic organisms 1 | 0.0034 mg/l Oncorhynchus mykiss (rainbow trout) 96 h |
| EC50 Daphnia 1 | 0.00108 mg/l Immobilization - Daphnia magna (Water flea) 48 h |
| LC50 fish 2 | 0.01 mg/l Lepomis macrochirus (Bluegill) 96 h |
| LOEC (acute) | 150 mg/l Oncorhynchus mykiss (rainbow trout) 3 d |
| NOEC (acute) | 113 mg/l Oncorhynchus mykiss (rainbow trout) 3 d |

| pyridine (110-86-1) | |
|----------------------------|-----------------------|
| LC50 fish 1 | 4.6 mg/l (LC50; 96 h) |
| EC50 Daphnia 2 | 495 mg/l (EC50; 48 h) |

| Methylene Chloride (75-09-2) | |
|-------------------------------------|--|
| LC50 fish 1 | 193 mg/l (LC50; 96 h; Pimephales promelas) |
| EC50 Daphnia 1 | 168.2 mg/l (EC50; 48 h) |

12.2. Persistence and degradability

| 20 ppm SV Test Mix | |
|-------------------------------|---|
| Persistence and degradability | May cause long-term adverse effects in the environment. |

| pyridine (110-86-1) | |
|---------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Non degradable in the soil. Biodegradable in the soil under anaerobic conditions. |
| Biochemical oxygen demand (BOD) | 1.15 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 0.05 g O ₂ /g substance |
| ThOD | 2.23 g O ₂ /g substance |
| BOD (% of ThOD) | 0.52 |

| Methylene Chloride (75-09-2) | |
|-------------------------------------|--|
| Persistence and degradability | Not readily biodegradable in water. Biodegradable in the soil. |

12.3. Bioaccumulative potential

| 20 ppm SV Test Mix | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

| 4,4'-DDT (50-29-3) | |
|---------------------------|--|
| BCF fish 1 | 46670 Oncorhynchus mykiss (rainbow trout) 20 d |
| Log Pow | 6.91 |

| pyridine (110-86-1) | |
|----------------------------|--|
| Log Pow | 0.65 - 1.04 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| Methylene Chloride (75-09-2) | |
|-------------------------------------|--|
| BCF fish 1 | 2 - 40 (BCF) |
| Log Pow | 1.25 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| pyridine (110-86-1) | |
|----------------------------|-------------------|
| Surface tension | 0.038 N/m (20 °C) |

| Methylene Chloride (75-09-2) | |
|-------------------------------------|---|
| Surface tension | 0.028 N/m (20 °C) |
| Ecology - soil | May be harmful to plant growth, blooming and fruit formation. |

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Other adverse effects

Additional 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.
Additional information : Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1993
UN-No.(IATA) : 1993
UN-No. (IMDG) : 1993
UN-No.(ADN) : 1993

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (IATA) : Flammable liquid, n.o.s.
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (ADN) : FLAMMABLE LIQUID, N.O.S.
Transport document description (ADR) : UN 1993 FLAMMABLE LIQUID, N.O.S., 3, II, (D/E)

14.3. Packing group

Class (ADR) : 3
Classification code (ADR) : F1
Class (IATA) : 3
Class (IMDG) : 3
Class (ADN) : 3
Classification code (ADN) : F1
Hazard labels (ADR) : 3



Hazard labels (IATA) : 3



Hazard labels (IMDG) : 3



Hazard labels (ADN) : 3

14.4. Packing group

Packing group (ADR) : II
Packing group (IATA) : II
Packing group (IMDG) : II
Packing group (ADN) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 33

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| | |
|-------------------------------|---|
| Classification code (ADR) | : F1 |
| Orange plates | :  |
| Special provision (ADR) | : 274, 601, 640D |
| Transport category (ADR) | : 2 |
| Tunnel restriction code (ADR) | : D/E |
| Limited quantities (ADR) | : 1I |
| Excepted quantities (ADR) | : E2 |

14.6.2. Transport by sea

| | |
|---------------------------------|------------------|
| Special provision (IMDG) | : 274 |
| Limited quantities (IMDG) | : 1 L |
| Excepted quantities (IMDG) | : E2 |
| Packing instructions (IMDG) | : P001 |
| IBC packing instructions (IMDG) | : IBC02 |
| Tank instructions (IMDG) | : T7 |
| Tank special provisions (IMDG) | : TP1, TP8, TP28 |
| EmS-No. (Fire) | : F-E |
| EmS-No. (Spillage) | : S-E |
| Stowage category (IMDG) | : B |

14.6.3. Air transport

| | |
|--|--------|
| CAO packing instructions (IATA) | : 364 |
| CAO max net quantity (IATA) | : 60L |
| PCA packing instructions (IATA) | : 353 |
| PCA Limited quantities (IATA) | : Y341 |
| PCA limited quantity max net quantity (IATA) | : 1L |
| PCA max net quantity (IATA) | : 5L |
| PCA Excepted quantities (IATA) | : E2 |
| Special provision (IATA) | : A3 |
| ERG code (IATA) | : 3H |

14.6.4. Inland waterway transport

| | |
|-----------------------------------|------------------|
| Special provision (ADN) | : 274, 601, 640D |
| Limited quantities (ADN) | : 1 L |
| Excepted quantities (ADN) | : E2 |
| Carriage permitted (ADN) | : T |
| Equipment required (ADN) | : PP, EX, A |
| Ventilation (ADN) | : VE01 |
| Number of blue cones/lights (ADN) | : 1 |
| Carriage prohibited (ADN) | : No |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions
Contains no REACH candidate substance
Contains no REACH Annex XIV substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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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.

Other information : None.

PHV SDS EU

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