

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : NARK2004 Ehrlich's Reagent for LSD
Product code : NARK2004

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Crime Scene Investigation

1.3. Supplier

SIRCHIE
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 (USA) +1-703-527-3887 (INTL)
CHEMTREC: 1.800.424.9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2 H225 Highly flammable liquid and vapor
Acute toxicity (inhalation:dust,mist) Category 4 H332 Harmful if inhaled
Skin corrosion/irritation Category 1C H314 Causes severe skin burns and eye damage
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor
H314 - Causes severe skin burns and eye damage
H332 - Harmful if inhaled

Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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 dust/fume/gas/mist/vapors/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
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.
P310 - Immediately call a poison center or doctor.
P312 - Call a poison center or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).

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P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : These chemicals, as used in our chemical field test reagents, are in diluted and minimal concentrations and should not be harmful to users who adhere to good chemical handling hygiene.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|-----------------------------|---------------------|-------|---|
| ethanol | (CAS-No.) 64-17-5 | 31.35 | Flam. Liq. 2, H225 |
| phosphoric acid, solid | (CAS-No.) 7664-38-2 | 28.9 | Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Corr. 1C, H314 |
| AQUA | (CAS-No.) 7732-18-5 | 22.11 | Not classified |
| hydrochloric acid | (CAS-No.) 7647-01-0 | 12.21 | Skin Corr. 1, H314 |
| AQUA | (CAS-No.) 7732-18-5 | 5.1 | Not classified |
| 4-dimethylaminobenzaldehyde | (CAS-No.) 100-10-7 | 1.65 | Acute Tox. 4 (Oral), H302 |

Full text of hazard classes and H-statements : 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 affected person 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 persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry chemical powder. Foam. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable.
Explosion hazard : No data available on direct explosion hazard.
Reactivity in case of fire : No reactivity hazard other than the effects described in sub-sections below.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not attempt to take action without suitable protective equipment.

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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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| | |
|---|------------------------|
| NARK2004 Ehrlich's Reagent for LSD | |
| No additional information available | |
| 4-dimethylaminobenzaldehyde (100-10-7) | |
| No additional information available | |
| ethanol (64-17-5) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH STEL (ppm) | 1000 ppm |
| hydrochloric acid (7647-01-0) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | 2.98 mg/m ³ |
| ACGIH TWA (ppm) | 2 ppm |
| USA - OSHA - Occupational Exposure Limits | |
| OSHA PEL (TWA) (mg/m ³) | 7 mg/m ³ |
| OSHA PEL (TWA) (ppm) | 5 ppm |
| USA - IDLH - Occupational Exposure Limits | |
| US IDLH (ppm) | 50 ppm |
| USA - NIOSH - Occupational Exposure Limits | |
| NIOSH REL (TWA) (mg/m ³) | 7 mg/m ³ |
| NIOSH REL TWA [ppm] | 5 ppm |
| AQUA (7732-18-5) | |
| No additional information available | |

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| | |
|---|---------------------|
| phosphoric acid, solid (7664-38-2) | |
| USA - ACGIH - Occupational Exposure Limits | |
| ACGIH TWA (mg/m ³) | 1 mg/m ³ |
| ACGIH STEL (mg/m ³) | 3 mg/m ³ |
| AQUA (7732-18-5) | |
| No additional information available | |

8.2. Appropriate engineering controls

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Safety glasses.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Personal protective equipment symbol(s):



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) | : Non flammable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |

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Explosive properties : No data available

Oxidizing properties : 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

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

10.4. Conditions to avoid

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

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) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Harmful if inhaled.

| | |
|---------------------|---------------|
| ATE US (dust, mist) | 3.322 mg/l/4h |
|---------------------|---------------|

| ethanol (64-17-5) | |
|-----------------------|--|
| LD50 oral rat | 10470 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | > 15800 mg/kg body weight (Rabbit, Experimental value, Dermal) |
| LC50 Inhalation - Rat | 124.7 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |

| phosphoric acid, solid (7664-38-2) | |
|------------------------------------|--|
| LD50 oral rat | 2600 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Female, Experimental value, 10 % aqueous solution, Oral, 7 day(s)) |
| LD50 dermal rabbit | 2740 mg/kg body weight (Rabbit, Experimental value, Skin) |
| LC50 Inhalation - Rat | 0.96 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male, Read-across, Converted value, Inhalation, 14 day(s)) |

Skin corrosion/irritation : Causes severe skin burns.

Serious eye damage/irritation : Assumed to cause serious eye damage

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| ethanol (64-17-5) | |
|------------------------|--|
| Additional information | Ethyl alcohol (200 Proof) has been shown to cause cancer in Human and Animals when ingested in volume over time. There is no link to cancer in limited exposure scenarios. |

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

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| | |
|---|--|
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |

SECTION 12: Ecological information

12.1. Toxicity

| 4-dimethylaminobenzaldehyde (100-10-7) | |
|--|---|
| LC50 fish 1 | 45.7 mg/l (96 h, Pisces, Literature study) |
| EC50 Daphnia 1 | 1.58 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect) |
| ErC50 (algae) | 72.7 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP) |
| ethanol (64-17-5) | |
| LC50 fish 1 | 15300 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal) |
| phosphoric acid, solid (7664-38-2) | |
| LC50 fish 1 | 75.1 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Static system, Fresh water, Experimental value, Lethal) |
| EC50 Daphnia 1 | > 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |

12.2. Persistence and degradability

| NARK2004 Ehrlich's Reagent for LSD | |
|--|--|
| Persistence and degradability | Not established. |
| 4-dimethylaminobenzaldehyde (100-10-7) | |
| Persistence and degradability | Not readily biodegradable in water. |
| ethanol (64-17-5) | |
| Persistence and degradability | Biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.8 – 0.967 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.7 g O ₂ /g substance |
| ThOD | 2.1 g O ₂ /g substance |
| hydrochloric acid (7647-01-0) | |
| Persistence and degradability | Biodegradability: not applicable. |
| phosphoric acid, solid (7664-38-2) | |
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |

12.3. Bioaccumulative potential

| NARK2004 Ehrlich's Reagent for LSD | |
|---|--|
| Bioaccumulative potential | Not established. |
| 4-dimethylaminobenzaldehyde (100-10-7) | |
| Partition coefficient n-octanol/water (Log Pow) | 1.8 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
| ethanol (64-17-5) | |
| Partition coefficient n-octanol/water (Log Pow) | -0.35 (Experimental value, Equivalent or similar to OECD 107, 24 °C) |
| Bioaccumulative potential | Not bioaccumulative. |

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| hydrochloric acid (7647-01-0) | |
|---|--|
| Bioaccumulative potential | Does not contain bioaccumulative component(s). |
| phosphoric acid, solid (7664-38-2) | |
| Bioaccumulative potential | Not bioaccumulative. |

12.4. Mobility in soil

| 4-dimethylaminobenzaldehyde (100-10-7) | |
|---|--|
| Partition coefficient n-octanol/water (Log Koc) | 1 – 1.632 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |
| ethanol (64-17-5) | |
| Surface tension | 22.31 mN/m (20 °C, 100 %) |
| Partition coefficient n-octanol/water (Log Koc) | 0.2 (log Koc, Experimental value) |
| Ecology - soil | Highly mobile in soil. |
| hydrochloric acid (7647-01-0) | |
| Ecology - soil | No (test)data on mobility of the component(s) available. May be harmful to plant growth, blooming and fruit formation. |
| phosphoric acid, solid (7664-38-2) | |
| Surface tension | Not applicable (solid) |
| Ecology - soil | No (test)data on mobility of the substance available. |

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging 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

Transport document description : UN3316 Chemical kits, 9, II
UN-No.(DOT) : UN3316
Proper Shipping Name (DOT) : Chemical kits
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : II - Medium Danger
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Packaging Non Bulk (49 CFR 173.xxx) : 161
DOT Packaging Bulk (49 CFR 173.xxx) : None

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| | |
|--|---|
| DOT Special Provisions (49 CFR 172.102) | : 15 - This entry applies to Chemical kits and First aid kits containing one or more compatible items of hazardous materials in boxes, cases, etc. that are used for medical, analytical, diagnostic or testing purposes. For transportation by aircraft, materials forbidden for transportation by passenger aircraft or cargo aircraft may not be included in the kits. Chemical kits and first aid kits are excepted from the specification packaging requirements of this subchapter when packaged in combination packaging. Chemical kits and first aid kits are also excepted from the labeling and placarding requirements of this subchapter, except when offered for transportation or transported by air. Chemical and first aid kits may be transported in accordance with the consumer commodity and ORM exceptions in 173.156, provided they meet all required conditions. Kits that are carried on board transport vehicles for first aid or operating purposes are not subject to the requirements of this subchapter. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | : 161 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 10 kg |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | : 10 kg |
| DOT Vessel Stowage Location | : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. |
| Other information | : No supplementary information available. |

Transportation of Dangerous Goods

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

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Subject to reporting requirements of 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

National regulations

No additional information available

15.3. US State regulations

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

SECTION 16: Other information

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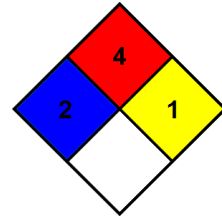
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- Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- 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 : This Safety Data Sheet has been established in accordance with the applicable European Union legislation.

Full text of H-phrases:

| | |
|------|---|
| H225 | Highly flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H331 | Toxic if inhaled |
| H332 | Harmful if inhaled |

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.
- NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.



Hazard 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.