

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
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
CHEMTREC: 1.800.424.9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

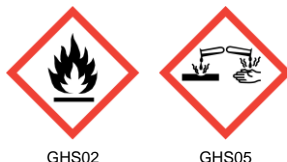
Flammable liquids Category 2	H225	Highly flammable liquid and vapor
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage

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

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P264 - Wash hands, forearms and face 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
P310 - Immediately call a doctor
P370+P378 - In case of fire: Use CO2, dry chemical, foam, water spray to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to local/regional/national/international regulations

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.

NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

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. 4 (Oral), H302 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. 1B, H314 STOT SE 3, H335
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 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 (acute and delayed)

Symptoms/injuries : 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	: No data available.

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.

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.

NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

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

4-dimethylaminobenzaldehyde (100-10-7)		
Not applicable		
ethanol (64-17-5)		
ACGIH	ACGIH STEL (ppm)	1000 ppm (Ethanol; USA; Short time value; TLV - Adopted Value)
hydrochloric acid (7647-01-0)		
Not applicable		
AQUA (7732-18-5)		
Not applicable		
phosphoric acid, solid (7664-38-2)		
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ (Phosphoric acid; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (mg/m ³)	3 mg/m ³ (Phosphoric acid; USA; Short time value; TLV - Adopted Value)
AQUA (7732-18-5)		
Not applicable		

8.2. Appropriate engineering controls

No additional information available

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



NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

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.
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
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 : Not classified

NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

4-dimethylaminobenzaldehyde (100-10-7)	
ATE US (oral)	500.000 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)

phosphoric acid, solid (7664-38-2)	
LD50 oral rat	1530 mg/kg (Rat)
LD50 dermal rabbit	2740 mg/kg (Rabbit)
ATE US (oral)	1530.000 mg/kg body weight
ATE US (dermal)	2740.000 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

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.
IARC group	1 - Carcinogenic to humans
hydrochloric acid (7647-01-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met
STOT-single exposure : Not classified
STOT-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

4-dimethylaminobenzaldehyde (100-10-7)	
LC50 fish 1	45.7 mg/l (LC50; 96 h)
ethanol (64-17-5)	
LC50 fish 1	14200 mg/l (LC50; US EPA; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
hydrochloric acid (7647-01-0)	
EC50 Daphnia 1	56 mg/l (LC50; Other; 48 h; Daphnia magna)
phosphoric acid, solid (7664-38-2)	
LC50 fish 1	138 mg/l (LC50)

12.2. Persistence and degradability

NARK2004 Ehrlich's Reagent for LSD	
Persistence and degradability	Not established.
4-dimethylaminobenzaldehyde (100-10-7)	
Persistence and degradability	Biodegradability in water: no data available.

NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

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)	1.7 g O ₂ /g substance
ThOD	2.1 g O ₂ /g substance
BOD (% of ThOD)	0.43

hydrochloric acid (7647-01-0)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.

phosphoric acid, solid (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

NARK2004 Ehrlich's Reagent for LSD	
Bioaccumulative potential	Not established.

4-dimethylaminobenzaldehyde (100-10-7)	
Log Pow	1.81
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

ethanol (64-17-5)	
BCF fish 1	1 (BCF; Other; 72 h; Cyprinus carpio; Static system; Fresh water; Read-across)
Log Pow	-0.31 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

hydrochloric acid (7647-01-0)	
Log Pow	0.3 (Literature)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

phosphoric acid, solid (7664-38-2)	
Log Pow	-0.77 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

ethanol (64-17-5)	
Surface tension	0.022 N/m (20 °C)
Log Koc	Koc,PCKOCWIN v1.66; 1; Read-across

hydrochloric acid (7647-01-0)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

12.5. Other adverse effects

Effect on the global warming	: No known effects from this product.
GWPmix comment	: No known effects from this product.
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.

NAK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

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
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.

TDG

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

NAK2004 Ehrlich's Reagent for LSD

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

NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

NARK2004 Ehrlich's Reagent for LSD	
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

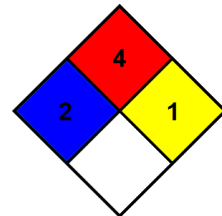
SECTION 16: Other information

- 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
H335	May cause respiratory irritation

- 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.



NARK2004 Ehrlich's Reagent for LSD

Safety Data Sheet

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

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.