

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: October 18, 2016

Revision: October 18, 2016

1 Identification

- **Product identifier**
- **Trade name:** Nin-Print Ninhydrin Spray
- **Product code:** B-785 (100645)
- **Recommended use and restriction on use**
- **Recommended use:** Forensics.
- **Restrictions on use:** Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Safariland, LLC
13386 International Parkway
Jacksonville, FL 32218
Customer Care (800) 347-1200
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585



2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Aerosol 1 H222 Extremely flammable aerosol.
Press. Gas H280 Contains gas under pressure; may explode if heated.
Skin Irrit. 2 H315 Causes skin irritation.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**



GHS02 GHS04 GHS07 GHS08

- **Signal word:** Danger
- **Hazard statements:**
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H304 May be fatal if swallowed and enters airways.
- **Precautionary statements:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251 Pressurized container: Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P264 Wash thoroughly after handling.
P280 Wear protective gloves and eye protection.
P302+P352 IF ON SKIN: Wash with plenty of water.

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P332+P313 If skin irritation occurs: Get medical advice/attention.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P331 Do NOT induce vomiting.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P405 Store locked up.
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
 P403 Store in a well-ventilated place.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

68476-86-8	Petroleum gases, liquefied, (Nota K, -R45, R46, <0.1% 1,3-butadiene buta-1,3-diene) 	40-60%
64742-53-6	Distillates (petroleum), hydrotreated light naphthenic 	20-40%
1634-04-4	tert-butyl methyl ether 	5-10%
64-17-5	ethanol 	1-5%
485-47-2	indan-1,2,3-trione Combustible Dust	<1.0%

· **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

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4 First-aid measures

- **Description of first aid measures**
- **General information:** Take affected persons out into the fresh air.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately remove any clothing soiled by the product.
Wash with soap and water.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
A person vomiting while lying on their back should be turned onto their side.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
Dizziness
Coughing
Gastric or intestinal disorders when ingested.
Irritating to eyes and skin.
Disorientation
- **Danger:**
Danger of pulmonary edema.
Danger of impaired breathing.
- **Indication of any immediate medical attention and special treatment needed:**
If medical advice is needed, have product container or label at hand.
If swallowed or in case of vomiting, danger of entering the lungs.
If necessary oxygen respiration treatment.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water fog / haze
Alcohol resistant foam
Fire-extinguishing powder
Water spray
Gaseous extinguishing agents
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water stream.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Extremely flammable aerosol.

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Pressurized container: May burst if heated.

- **Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

- **Additional information:**

Eliminate all ignition sources if safe to do so.

Cool endangered containers with water fog.

Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Protect from heat.

- **Environmental precautions** No special measures required.

- **Methods and material for containment and cleaning up**

Allow to evaporate.

Absorb liquid components with non-combustible liquid-binding material.

Dispose unusable material as waste according to item 13.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- **Handling**

- **Precautions for safe handling:**

Use only outdoors or in a well-ventilated area.

Avoid splashes or spray in enclosed areas.

- **Information about protection against explosions and fires:**

Do not spray on flame or other ignition source; no smoking.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 120 °F / 49 °C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Provide ventilation for receptacles.

- **Information about storage in one common storage facility:**

Do not store together with oxidizing and acidic materials.

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Store away from foodstuffs.

· **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

1634-04-4 tert-butyl methyl ether

TLV (USA)	Long-term value: 180 mg/m ³ , 50 ppm
EL (Canada)	Long-term value: 50 ppm
EV (Canada)	Long-term value: 40 ppm
LMPE (Mexico)	Long-term value: 50 ppm

64-17-5 ethanol

PEL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m ³ , 1000 ppm
EL (Canada)	Short-term value: 1000 ppm
EV (Canada)	Long-term value: 1.900 mg/m ³ , 1.000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands and face after working with the substance.

Do not inhale gases / fumes / aerosols.

· **Engineering controls:** Provide adequate ventilation.

· **Breathing equipment:**

Use suitable respiratory protective device when high concentrations are present.

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves** Nitrile rubber, NBR

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- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

- **Limitation and supervision of exposure into the environment**

Product is known to be toxic to the environment. Do not release into sewers or bodies of water.

- **Risk management measures**

See Section 7 for additional information.

No relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

Form: Aerosol

Color: Colorless

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Melting point/Melting range:** Not determined.

- **Boiling point/Boiling range:** Not applicable, as aerosol.

- **Flash point:** Not applicable, as aerosol.

- **Flammability (solid, gaseous):** Extremely flammable aerosol.

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Danger of explosion:** Not determined.

- **Explosion limits**

Lower: Not determined.

Upper: Not determined.

- **Oxidizing properties:** Not determined.

- **Vapor pressure:** Not determined.

- **Density:**

Relative density: Not determined.

Vapor density: Not determined.

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Evaporation rate: Not applicable.

· **Solubility in / Miscibility with Water:** Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity**
Dynamic: Not determined.
Kinematic: Not determined.
 · **Other information** No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable
- **Thermal decomposition / conditions to be avoided:**
 Pressurized container: Do not pierce or burn, even after use.
 Contains gas under pressure; may explode if heated.
- **Possibility of hazardous reactions**
 Extremely flammable aerosol.
 Reacts violently with oxidizing agents.
 Reacts with strong acids and alkali.
 Toxic fumes may be released if heated above the decomposition point.
 Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
- **Conditions to avoid** Sources of ignition, open flame, incompatible materials.
- **Incompatible materials** Strong acids, oxidisers, water.
- **Hazardous decomposition products**
 Under fire conditions only:
 Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
 - **LD/LC50 values that are relevant for classification:**
- | ATE (Acute Toxicity Estimates) | | |
|--------------------------------|---------|----------------------|
| Oral | LD50 | >10000 mg/kg (rat) |
| Irritation of skin | LD50 | >5000 mg/kg (rabbit) |
| Inhalative | LC50/4h | >100 mg/l (rat) |
- **Primary irritant effect:**
 - **On the skin:** Irritant to skin and mucous membranes.
 - **On the eye:** Irritating effect.
 - **Sensitization:** No sensitizing effects known.

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· **IARC (International Agency for Research on Cancer):**

64-17-5 ethanol

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· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Inhalation.
Skin contact.
Eye contact.

· **Acute effects (acute toxicity, irritation and corrosivity):**

Irritating to eyes and skin.
May be fatal if swallowed and enters airways.

· **Repeated dose toxicity:** From product as supplied: None.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** May be fatal if swallowed and enters airways.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

· **Additional ecological information**

· **General notes:**

Negative ecological effects are, according to the current state of knowledge, not expected.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Incinerate in accordance with local, state and federal regulations.

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The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR, IMDG, IATA	UN1950
· UN proper shipping name	
· DOT	Aerosols, flammable
· ADR, IMDG	AEROSOLS
· IATA	AEROSOLS, flammable
· Transport hazard class(es)	
· DOT	
	
· Class	2.1
· Label	2.1
· ADR	
	
· Class	2 5F Gases
· Label	2.1
· IMDG, IATA	
	
· Class	2.1
· Label	2.1
· Packing group	This UN-number is not assigned a packing group. Aerosols are not assigned a packing group.
· Environmental hazards	Not applicable.
· Special precautions for user	Warning: Gases
· Danger code (Kemler):	21

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· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

1634-04-4 | tert-butyl methyl ether

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)

· Chemicals known to cause cancer:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 | ethanol

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 | ethanol

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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

1634-04-4	tert-butyl methyl ether	3
64-17-5	ethanol	1

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 10/18/2016 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Flam. Gas 1: Flammable gases – Category 1

Flam. Aerosol 1: Aerosols – Category 1

Press. Gas: Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

· **Sources**

SDS Prepared by:

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