

Safety Data Sheet

SECTION I: Product and Company Identification

1.1 Product identifiers

Product name: Ni-NTA Agarose

Product Number: A1025

Brand: MEDNA™

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

Identified uses: For scientific research and development.

1.3 Details of the supplier of the safety data sheet

Company: MEDNA Scientific™

1551 Corporate Drive

Irving, TX 75038

Office: 469-496-8847

Emergency phone number: 469-496-8847

SECTION II: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Considered hazardous by the OSHA Hazard Communication Standard.

Hazardous Material Information System: Health: 2, Fire hazard: 3, Reactivity: 0, Personal protection: C.

National Fire Protection Association: Health: 2, Flammability: 3, Instability: 0.

2.2 GHS Label elements, including precautionary statements

Warning! CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, NERVOUS SYSTEM, REPRODUCTIVE SYSTEM, LIVER, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA. FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF SWALLOWED.

Do not ingest. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation.

Wash thoroughly after handling.

2.3 Other hazards

None

SECTION III: Composition/information on ingredients

Component	Cas#	%by weight
Ni-NTA Resin	990-00-1	80%
Ethanol	64-17-5	20%

SECTION IV: First aid measures

4.1 Description of first aid measures

If inhaled

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention

In case of skin contact

Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In case of eye contact

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

If swallowed

Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2 Important Symptoms and Effects, Both Acute and Delayed:

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION V: Firefighting measures**5.1 Flammability:** Flammable material**5.2 Suitable extinguishing media**

Use dry chemical, carbon dioxide, water spray or foam. Do not use water jet.

5.3 Special hazards arising from the substance or mixture

Flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

5.4 Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION VI: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Immediately contact emergency personnel. Eliminate ignition sources. Use protective equipment. Do not touch or walk through.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

6.3 Methods and materials for containment and cleaning up

If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

SECTION VII: Handling and storage

7.1 Precautions for safe handling

Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

SECTION VIII: Exposure controls/personal protection**8.2 Exposure controls****Appropriate engineering controls**

Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Personal protective equipment**Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin and body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hygiene Measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION IX: Physical and chemical properties**9.1 Basic physical and chemical properties**

- a) Physical state: Liquid. Supplied as a mixture of non-hazardous substances with Ni-NTA Resin and ethanol.
- b) Flash point: The lowest known value is Closed cup: 12.9 °C (Ethanol)
- c) Auto-ignition temperature: The lowest known value is 398.9 °C (Ethanol)

- d) Boiling/condensation point: The lowest known value is 78.4°C (Ethanol)
- e) Melting/freezing point: May start to solidify at -144°C (-227.2°F) based on data for: Ethanol.
- f) Relative density: 0.79 for water.
- g) Vapor density: 1.6 for ethanol.
- h) Evaporation rate: 1.7 (ethanol) compared with (n-BUTYL ACETATE=1)
- i) Solubility: Easily soluble in cold water, hot water.

SECTION X: Stability and reactivity

10.1 Stability and Reactivity

Product is stable

10.2 Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials, metals, acids and alkalis. Incompatible with ammonia. Incompatible with peroxides

10.3 Conditions of reactivity

Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

SECTION XI: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Ethanol

Rat Oral LD50 7060 mg/kg

Rabbit Oral LD50 6300 mg/kg

Mouse Oral LD50 3450 mg/kg

Dog Oral LDLo 5500 mg/kg

Human Oral LDLo 1400 mg/kg

Cat Oral LDLo 6000 mg/kg

Rabbit Dermal LDLo 20000 mg/kg

Rat Inhalation LC50 20000 ppm (10 hours)

Mouse Inhalation LC50 39000 mg/m³ (4 hours)

Chronic effects on humans:

Contains material which causes damage to the following organs: blood, the nervous system, the reproductive system, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Other toxic effects:

Hazardous in case of skin contact (sensitizer), of ingestion, of inhalation (lung sensitizer). Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).

Not thoroughly investigated.

Serious eye damage/eye irritation

Irritating.

Respiratory or skin sensitization

Irritating.

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION XII: Ecological information**12.1 Toxicity**

Ethanol

Daphnia magna EC50 48 hours 2 mg/L

Pimephales promelas LC50 96 hours >100 mg/L

Daphnia magna LC50 96 hours >100 mg/L

Oncorhynchus mykiss LC50 96 hours 13000 mg/L

12.2 Persistence and degradability

Degradation products are carbon oxides (CO, CO₂) and water.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION XIII: Disposal considerations**13.1 Waste treatment methods****Product**

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

SECTION XIV: Transport information**DOT (US)**

UN1170, Proper shipping name: Ethanol Solution (Ethanol), Class: 3, Packing Group: 3

TDG Classification (CA)

UN1170, Proper shipping name: Ethanol Solution (Ethanol), Class: 3, Packing Group: 3

ADR/RID Classification (EU)

UN1170, Proper shipping name: Ethanol Solution (Ethanol), Class: 3, Packing Group: 3

IATA-DGR Class

UN1170, Proper shipping name: Ethanol Solution (Ethanol), Class: 3, Packing Group: 3,



Label: , Passenger and Cargo Aircraft Quantity Limitation: 60 L

Cargo Aircraft only Quantity Limitation: 220 L, Limited Quantities Passenger Aircraft Quantity Limitation: 10 L.

SECTION XV: Regulatory information

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

HCS Classification: Irritating material. Target organ effects.

TSCA (Toxic Substances Control Act) 8b inventory: Ethanol

SARA302/304/311/312: No extremely hazardous substances.

SARA302/304: No substances for emergency planning and notification.

SARA302/304/311/312: Hazardous chemicals: Ethanol

SARA311/312 MSDS Distribution – chemical inventory – hazard identification: Ethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard.

State Regulations:

Pennsylvania right to know: Ethanol: Generic environmental hazard.

Massachusetts right to know: Ethanol

New Jersey: Ethanol

Canada:

WHMIS: Class B-2: Flammable liquid, Class D-2B: Material causing other toxic effects (Toxic),
CEPA DSL: Ethanol.

EU:

Risk phrases: R10- Flammable. R22- Harmful if swallowed. R42/43- May cause sensitization by inhalation and skin contact.

Safety phrases: S7- Keep container tightly closed. S16- Keep away from sources of ignition - No smoking. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36- Wear suitable protective clothing.

SECTION XVI: Other information

Label requirements: CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, NERVOUS SYSTEM, REPRODUCTIVE SYSTEM, LIVER, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE,

LENS OR CORNEA. FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF SWALLOWED.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not

represent any guarantee of the properties of the product. MEDNA Scientific shall not be held liable for any damage resulting from handling or from contact with the above product.

Version: 3.0 Revision Date: 10/2/2026