

DeNovix Inc.

Safety Data Sheet

According to the Hazard Communication Standard (29 CFR 1910.1200)

VERSION NO.: 1.0

DATE: 03/02/2016

www.denovix.com

SECTION 1: IDENTIFICATION

PRODUCT NAME: CUV-NA
PRODUCT CODES: CUV-NA

MANUFACTURER: DeNovix Inc.
ADDRESS: 3411 Silverside Road
Hanby Building 101
Wilmington, DE 19810

PHONE INSIDE US: 1-302-442-6911
PHONE OUTSIDE US: +1-302-442-6911

PRODUCT USE: For research use only
PREPARED BY: DeNovix Inc.

SECTION 2: HAZARDS IDENTIFICATION



GHS CLASSIFICATION Aquatic Acute: Category 3
Eye irritation: Category 2A

SIGNAL WORD Warning

HAZARD STATEMENTS

H319 Causes serious eye irritation
H402 Harmful to aquatic life
H290 May be corrosive to metals

PRECAUTIONARY STATEMENTS

P305 + P351 + P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P273 Avoid release to the environment

P280 Wear eye protection

P313 + P337 May be harmful in contact with skin

P501 Dispose of contents and container to comply with local, state, and federal regulations

HMIS CLASSIFICATION:

HEALTH HAZARD 1
FLAMMABILITY 0
PHYSICAL HAZARDS 0

NFPA RATING:

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HEALTH HAZARDS 1
FIRE 0
REACTIVITY HAZARDS 0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE

NAME	COMMON NAME	CHEMICAL FORMULA	CAS#	APPROXIMATE %
NICOTINIC ACID	NIACIN	C ₆ H ₅ NO ₂	59-67-6	0.0019
WATER	WATER	H ₂ O	7732-18-5	99.994
HYDROCHLORIC ACID	HYDROCHLORIC ACID	HCl	7647-01-0	0.0036

SECTION 4: FIRST AID MEASURES

GENERAL FIRST AID:

Never give anything by mouth to an unconscious person. Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

IF INHALED:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician if irritation develops.

IN CASE OF SKIN CONTACT

Remove contaminated clothing and wash exposed skin with soap and plenty of water. Consult a physician if irritation develops.

IN CASE OF EYE CONTACT:

Rinse thoroughly with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician if irritation develops.

IF SWALLOWED

Rinse mouth with water. Do NOT induce vomiting. Consult a physician.

IMPORTANT SYMPTOMS/EFFECTS ACUTE AND DELAYED

Skin contact Causes skin irritation

Eye contact Causes eye irritation

IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT

No additional information

SECTION 5: FIRE-FIGHTING MEASURES

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SUITABLE EXTINGUISHING MEDIA

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

UNSUITABLE EXTINGUISHING MEDIA

High pressure water stream

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self contained breathing apparatus for fire fighting if necessary.

HAZARDOUS COMBUSTION PRODUCTS

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use personal protective equipment. Safety glasses, gloves. Evacuate area of non-essential personnel. Eliminate ignition sources.

ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Clean up spill with inert absorbent material. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

CONDITIONS FOR SAFE STORAGE

Keep container tightly closed in a dry and well-ventilated place. Light sensitive. Keep in a dry place.

HYGIENE MEASURES

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

OTHER INFORMATION

Do not eat, drink, or smoke when using this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS

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Maintain eye-wash fountain and quick drench facilities in work place.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

HAND PROTECTION

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

EYE PROTECTION

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN AND BODY PROTECTION

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colorless liquid
ODOR:	No information available
ODOR THRESHOLD:	No information available
pH:	3
BOILING POINT:	100 ° C (water) 212 ° F (water)
FREEZING POINT:	0.0 ° C 32.0 ° F
FLASH POINT:	No information available
EVAPORATION RATE:	No information available
FLAMABILITY:	No information available
UPPER/LOWER FLAMABILITY LIMIT:	No information available
VAPOR PRESSURE:	No information available
VAPOR DENSITY:	No information available
SPECIFIC GRAVITY:	1.0 (water)
SOLUBILITY IN WATER:	Soluble
PARTITION COEFFICIENT N-OCTANOL/WATER:	No information available

AUTOIGNITION

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TEMPERATURE: No information available

DECOMPOSITION
TEMPERATURE: No information available

VISCOSITY: No information available

PHYSICAL STATE: Liquid

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable at ambient temperature.

REACTIVITY: Stable at ambient temperature.

INCOMPATIBILITY: Strong oxidizing agents

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Hazardous decomposition products formed under fire conditions.- Carbon oxides, nitrogen oxides (NO_x)

CONDITIONS TO AVOID: No information available

POSSIBLE HAZARDOUS REACTIONS: No information available

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY Not classified

Nicotinic Acid (59-67-6)	
LD50 ORAL RAT	7000 mg/kg
LD50 DERMAL RAT	>2000 mg/kg
LC50 INHALATION	No data available

OTHER INFORMATION ON ACUTE TOXICITY

LD50 Intraperitoneal – rat 730 mg/kg

LD50 Subcutaneous – rat 5,000 mg/kg

SKIN CORROSION/IRRITATION

SKIN – rabbit - No skin irritation 4 h - OECD Test Guideline 404

SERIOUS EYE DAMAGE/EYE IRRITATION

Eyes – rabbit - Moderate eye irritation - OECD Test Guideline 405

RESPIRATORY OR SKIN SENSITATION

Maximization Test - guinea pig - OECD Test Guideline 406 Did not cause sensitization on laboratory animals.

GERM CELL MUTAGENICITY

Genotoxicity in vitro - Ames test - S. typhimurium - negative

Genotoxicity in vitro - Chromosome aberration test in vitro - Other cell types - negative

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CARCINOGENICITY:

- IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY No data available

TERATOGENICITY No data available

SPECIFIC TARGET ORGAN TOXICITY - single exposure (Globally Harmonized System)

No data available

SPECIFIC TARGET ORGAN TOXICITY - repeated exposure (Globally Harmonized System)

No data available

ASPIRATION HAZARD No data available

POTENTIAL HEALTH EFFECTS

- INHALATION** May be harmful if inhaled. Causes respiratory tract irritation.
- INGESTION** May be harmful if swallowed. (Irritant)
- SKIN** May be harmful if absorbed through skin. Causes skin irritation.
- EYES** Causes eye irritation.

SIGNS AND SYMPTOMS OF EXPOSURE

Reversible liver enzyme abnormalities.

SYNERGISTIC EFFECTS No data available

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY

- FISH** Mortality LC50 - *Oncorhynchus mykiss* (rainbow trout) - 520 mg/l - 96 h Method: OECD Test Guideline 203
- DAPHNIA** Immobilization EC50 - *Daphnia magna* (Water flea) - 77 mg/l - 48 h Method: DIN 38412
- TOXICITY TO ALGAE** Growth inhibition IC50 - *Desmodesmus subspicatus* (green algae) - 90 mg/l - 72 h Method: OECD Test Guideline 201
- TOXICITY TO BACTERIA** Growth inhibition IC50 - *Pseudomonas putida* - 120 mg/l - 72 h

PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY Biotic/Aerobic – Result : 100 % - Readily biodegradable.

BIOACCUMULATIVE POTENTIAL No data available

MOBILITY IN SOIL No data available

PBT and vPvB ASSESSMENT

No data available

OTHER ADVERSE EFFECTS

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

No data available

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

PRODUCT: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

CONTAMINATED PACKAGING:

Dispose of as unused product.

OTHER INFORMATION: Avoid release to the surrounding environment

SECTION 14: TRANSPORT INFORMATION

DOT (US)

Not regulated according to DOT Regulations

IATA

Not regulated according to DOT Regulations

SECTION 15: REGULATORY INFORMATION

OSHA HAZARDS Irritant

SARA 302 COMPONENTS SARA 302: Hydrochloric Acid (CAS# 7647-01-0): 500lg TPQ (gas only)

SARA 313 COMPONENTS SARA 313: Hydrochloric Acid (CAS# 7647-01-0): 1.0% (De Minimis) concentration

SARA 311/312 HAZARDS SARA 311/312: Hydrochloric Acid (CAS# 7647-01-0): 5000 lb final RQ; 2270 kg final RQ

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

Hydrochloric Acid (CAS-NO. 7647-01-0): Extraordinarily Hazardous

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PENNSYLVANIA RIGHT TO KNOW COMPONENTS

Nicotinic acid (CAS # 59-67-6) present
Water (CAS # 7732-18-5) present
Hydrochloric Acid (CAS # 7647-01-0) present
Hydrochloric Acid (CAS # 7647-01-0) Environmental hazard

NEW JERSEY RIGHT TO KNOW COMPONENTS

Nicotinic acid (CAS # 59-67-6) present
Water (CAS # 7732-18-5) present
Hydrochloric Acid (CAS # 7647-01-0) corrosive
Hydrochloric Acid (CAS # 7647-01-0) sn 1012
Hydrochloric Acid (CAS # 7647-01-0) SN 1012TPQ: 500 lb (>= 37% concentration); SN 2909 TPQ: 500 lb (hydrogen chloride gas only. NJ uses UN1050 for reporting purposes)

CALIFORNIA PROP. 65 COMPONENTS

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Hydrochloric Acid (CAS # 7647-01-0) present
Water (CAS # 7732-18-5) present

United States of America Toxic Substances Control Act (TSCA) List

Hydrochloric Acid (CAS # 7647-01-0) present
Water (CAS # 7732-18-5) present

European Inventory of Existing Commercial Chemical Substances (EINECS),

European list of Notified Chemical Control Substances (ELINCS), and No Longer Polymer (NLP)

Not listed

SECTION 16: OTHER INFORMATION

DISCLAIMER:

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 with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. DeNovix Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.