

NESSLER'S REAGENT (FOR SERUM UREA NITROGEN)

SECTION 1: PRODUCT IDENTIFICATION

Product Name: NESSLER'S REAGENT

Product Code: TR 113

CAS#: Not available

CI#: Not available

Synonym: Not available

Chemical Name: Not available

Chemical Formula: Not available

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition:

Name: No components need to be disclosed according to the applicable regulations.

Toxicological Data on Ingredients: Classification according to Regulation (EC) No 1272/2008:

H290 - Corrosive to metals (Category 1)

H300 - Acute toxicity, Oral (Category 2)

H331 - Acute toxicity, Inhalation (Category 3)

H310 - Acute toxicity, Dermal (Category 1)

H314 - Skin corrosion (Category 1A)

H373 - Specific target organ toxicity - repeated exposure (Category 2)

H400 - Acute aquatic toxicity (Category 1)

H410 - Chronic aquatic toxicity (Category 1)

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects: Very hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant), of ingestion. Hazardous in case of inhalation. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects: Very hazardous in case of eye contact (irritant), of ingestion. Hazardous in case of skin contact (irritant), of inhalation. Non-corrosive for skin. Non-sensitizer for skin. Non-permeator by skin

Carcinogenic Effects: Not available

Mutagenic Effects: Not available

Teratogenic Effects: Not available

Developmental Toxicity: Not available

The substance is toxic to kidneys, the nervous system, mucous membranes, lungs. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION 4: FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Warm water must be used. Get medical attention if irritation occurs.



Skin Contact: If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical got on the victim's exposed skin, such as the hands : Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention

Inhalation: Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available

SECTION 5: FIRE FIGHTING MEASURES

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not available

Flash Points: Not available

Flammable Limits: Not available

Products of Combustion: Not available

Fire Hazards in Presence of Various Substances: Not available

Explosion Hazards in Presence of Various Substances:

Risks Of Explosion Of The Product In Presence Of Mechanical Impact: Not available

Fire Fighting Media and Instructions:

Small Fire: Not available

Large Fire: Not available

Special Remarks on Fire Hazards: Not available

Special Remarks on Explosion Hazards: Not available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.

Large Spill: Corrosive liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

SECTION 7: HANDLING AND STORAGE

Precautions: Keep locked up Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapour/spray. Never add water to this product In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes Keep away from incompatibles such as oxidizing agents, acids, moisture.

Storage: May corrode metallic surfaces. Store in a metallic or coated fiberboard drum using a strong polyethylene inner package.

Corrosive materials should be stored in a separate safety storage cabinet or room.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Mercuric iodide TWA: 0.01 (mg/m³) from OSHA (PEL) TWA: 0.05 CEIL: 0.15 (mg/m³) from ACGIH Sodium hydroxide CEIL: 2 (mg/m³) from ACGIH [1995] Consult local authorities for acceptable exposure limits.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance Form	: Liquid
Odour	: No data available
Taste	: No data available
Molecular Weight	: No data available
Colour	: Colourless to light yellow
pH	: No data available
Boiling Point	: No data available
Melting Point	: No data available
Critical Temperature	: Not Available
Relative Density	: Not Available
Vapor Pressure	: Not Applicable
Vapor Density	: Not Available
Volatility	: Not Available
Odor Threshold	: Not Available
Water/Oil Dist. Coeff.	: Not Available
Ionicity (in Water)	: Not Available
Dispersion Properties	: Not Available
Solubility	: Not Available

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is stable.

Instability Temperature: Not available

Conditions of Instability: Not available

Incompatibility with various substances: Reactive with oxidizing agents, acids. Slightly reactive to reactive with metals.

Corrosivity: Extremely corrosive in presence of aluminum. Slightly corrosive to corrosive in presence of glass, of zinc, of copper. Noncorrosive in presence of stainless steel(304), of stainless steel(316).

Special Remarks on Reactivity: Not available

Special Remarks on Corrosivity: Not available

Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Eye contact. Inhalation. Ingestion

Toxicity to Animals:

LD50: Oral - Mouse - 17 mg/kg (Mercuric iodide).



Dermal; - 75 mg/kg [Rat]. (Mercuric iodide)

LC50: Not available

Chronic Effects on Humans: The substance is toxic to kidneys, the nervous system, mucous membranes, lungs.

Special Remarks on Toxicity to Animals: Not available

Special Remarks on Chronic Effects on Humans: Not available

Special Remarks on other Toxic Effects on Humans: Not available

SECTION 12: ECOLOGICAL INFORMATION

Eco toxicity: Not available

BOD5 and COD: Not available

Toxicity of the Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

UN number

ADR/RID: 2024

IMDG: 2024

IATA: 2024

UN proper shipping name

ADR/RID: MERCURY COMPOUND, LIQUID, N.O.S. (Nessler's reagent)

IMDG: MERCURY COMPOUND, LIQUID, N.O.S. (Nessler's reagent)

IATA: Mercury compound, liquid, n.o.s. (Nessler's reagent)

Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

Packaging group

ADR/RID: II

IMDG: II

IATA: II

Environmental hazards

ADR/RID: Yes

IMDG Marine pollutant: Yes

IATA: no

Special precautions for user

No data available

SECTION 15: OTHER REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Mercuric Iodide; Potassium Iodide; Sodium Hydroxide; Water. **Other Regulations:** OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). **Other Classifications:**

WHMIS (Canada): CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive liquid

DSD (EEC):



This product is not classified according to the EU regulations. Not applicable

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 2

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health Hazard: 2

Fire Hazard: 0

Reactivity: 2

Specific Protection: Not available

SECTION 16: OTHER INFORMATION

References: H & R Statements:

H290 - Corrosive to metals (Category 1) - May be corrosive to metals.

H300 + H310 - Acute toxicity, Oral (Category 2) - Fatal if swallowed or in contact with skin

H331 - Acute toxicity, Inhalation (Category 3) - Toxic if inhaled.

H314 - Skin corrosion (Category 1A) - Causes severe skin burns and eye damage.

H373 - Specific target organ toxicity - repeated exposure (Category 2) - May cause damage to organs through prolonged or repeated exposure.

H400 - Acute aquatic toxicity (Category 1) - Very toxic to aquatic life.

H410 - Chronic aquatic toxicity (Category 1) - Very toxic to aquatic life with long lasting effects

Other Special Considerations: Not available

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