SA05452

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Kit #25R Enzymes as Catalysts for Starch Digestion



Version: SDS_177.00.00 Revision Date: February 18, 2016

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: Starch Indicator Iodine Solution Alternative names: **Diluted Lugol's Solution**

Product Number: 25-2EA, CASE-B015xx.

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

For laboratory and educational use only. Identified uses:

1.3 Details of the supplier of the safety data sheet
Company: LAB-AIDS®, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA.
Telephone: +1 800 381 8003.

+1 631 820 8268. Fax:

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification

Specific target organ toxicity, oral (Category 1), Thyroid, H372

Eye Irrit. (Category 2A), H319; Skin Irrit. (Category 2), H315

Aquatic Acute (Category 2), H402

Specific Target Organ Toxicity, Respiratory (Category 3), H335

2.2 Label elements, including precautionary statements:

Signal word: Hazards statements:

Precautionary statements:

Danger Pictogram:
H372—Causes damage to organs (Thyroid) through prolonged or repeated exposure if swallowed,

H335-May cause respiratory irritation. H319-Causes serious eye Irritation, H315-Causes skin irritation, H402-Harmful to aquatic life. P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection, P273—Avoid release to the environment,

P301+P312+330-IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

2.3 Hazards not otherwise classified: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Not applicable

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Chemical Name	Product identifier	%	GHS-US classification
Water	CAS# 7732-18-5	92.4%	Not classified
Potassium iodide	CAS# 7681-11-0	2.85%	Acute Tox. 4 (Oral), H302; Skin Irrit. 2, H315, Eye Irrit. 2A H319
lodine	CAS# 7553-56-2		Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Corr. 1, H314; Eye Dam 1 H318; STOT RE 1, H372; STOT SE 3, H335; Aquatic Acute 1, H400.

3.3 Chemicals where a trade secret is claimed: None

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develop.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Nonflammable liquid

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Excessive heat releases vapors of hydrogen iodide.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.

6.2 Emergency procedures: Restrict unprotected personnel from the area.

6.3 Methods and material used for containment and cleanup procedure: Contain the spill with an inert absorbent material and deposit in a sealed bag or container. For small spill use paper towel. Place the wet medium in trash. Ventilate and wash spill area with soap and water.

7. HANDLING AND STORAGE

7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing vapor. Use with adequate ventilation. Wash hands thoroughly after handling.

7.2 Storage: Keep container in cool, well-ventilated area. Keep away from heat.

7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: TWA: 0.01mg/m3

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron.

Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid. Appearance: Dark brown. Odor: Not available pH: Not available

Vapor Pressure (mm Hg): Not available

Vapor Density: Not available

Evaporation Rate: Not available Viscosity: N/A

Flash point: N/A Autoignition: N/A Boiling point: Not available Melting point: Not available Freezing point: Not available Decomposition temp: Not available Solubility: Not available

Specific gravity (H₂O = 1): ≈1 at 20°C

Percent volatile (%): 100% Molecular formula: Mixture Molecular weight: Mixture

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: High temperatures and incompatible materials.

Incompatibilities: Oxidizing agents, reducing agents, organic material, metals, acids, salts and alkaloids. Hazardous decomposition: Excessive heat releases vapors of hydrogen iodide.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eyes: Cause serious eye irritation. Eye contact with excessive amount of iodine vapor may also cause blepharitis. Skin: It may cause skin irritation. It may cause temporary brown stains on skin. Inhalation: Excessive inhalation of iodine vapors may cause respiratory tract irritation, that includes nasal cavity and mucus membrane irritation Ingestion: Ingestion of large doses may cause irritation to mouth with thirst, nausea, vomiting, abdominal pain, hypemotility and diarrhea. It may also affect cardiovascular system. Chronic exposure to elevated concentration of Iodine may damage thyroid.

Toxicological data

Acute toxicity ORAL LD50: 14,000mg/kg [Rat] (lodine). Acute toxicity DERMAL LD50: 1,425mg/kg [Rat] (lodine). Acute vapor toxicity IHL-LC50: 4,588mg/kg [Rat] (lodine).

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC50 Oncorhynchus mykiss (rainbow trout) 96 hours: 1.7 mg/l, LC50 (iodine), EC50 Daphnia magna (Water flea) 48 hours: 0.2 mg/l, (iodine) EC50 Daphnia magna (Water flea) 48 hours: 2.7 mg/l. (potassium iodide)

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA-listed, DSCL (EEC) R36/38 Irritating to eyes and skin, WHMIS (Canada) not controlled.

16. OTHER INFORMATION

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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Version: SDS_177.00.00 Revision Date: February 18, 2016



Version: SDS_233.01.00

Revision Date: February 18, 2016

1. IDENTIFICATION

1.1 Product Identifiers

Corn Starch Product Name: Corn Starch Alternative names: **Product Number:** 25R-7FA

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

For laboratory and educational use only Identified uses:

1.3 Details of the supplier of the safety data sheet

Company: LAB-AIDS*, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA

Telephone: +1 800 381 8003. +1 631 820 8268 Fax:

1.4 Emergency telephone number: Emergency number: CHEMTREC 1 800 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture GHS classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

2.2 Label elements, including precautionary statements

Pictogram: Not classified Signal word: Not classified

Hazards statements: Not classified Precautionary statements: Not classified

2.3 Hazards not otherwise classified: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Powder

3.2 Mixture: N/A

Chemical Name	Product identifier	%	GHS-US classification	
Starch	CAS# 9005-25-8	100%	Not classified	

3.3 Chemicals where a trade secret is claimed: None

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention if necessary.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if necessary.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: May be combustible in the presence of flame

Suitable extinguishing media: Use TriClass, dry chemical extinguisher for surrounding fires.

5.2 Special hazard arising from the substance or mixture: High concentration of dust in air in the presence of ignition source is a potential dust explosion hazard.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Wear laboratory grade gloves, saye protection and a lab coat.

6.2 Emergency procedures: Restrict unprotected personnel from the area.

6.3 Methods and material used for containment and cleanup procedure: Sweep up and place for disposal. Avoid formation of dust. Wash spill area with soap and water.

7. HANDLING AND STORAGE

- 7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing dust. Use with adequate ventilation. Wash hands th oroughly
- 7.2 Storage: Keep container in cool, well-ventilated area.
- 7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: Not classified.

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid. Appearance: White powder. Odor: Not available pH: Not available

Vapor Pressure (mm Hg): Not available Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: N/A Flash point: N/A Autoignition: N/A Boiling point: Not available Melting point: Not available

Freezing point: N/A

Decomposition temp: Not available Solubility: Insoluble in water Specific gravity (H₂O = 1): 1.5g/cm³ Percent volatile (%): Not available Molecular formula: (C₆H₁₀O₅)n Molecular weight: Not available

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Heat and incompatible materials

Incompatibilities: Oxidizing agents. Hazardous decomposition: Not available. Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eyes: Dust may cause mechanical irritation to eyes. Skin: No data available. Inhalation: Excessive inhalation may cause minor respiratory irritation. Ingestion: Not data available.

Toxicological data

Acute oral toxicity ORAL LD₅₀: Not available Acute vapor toxicity IHL-LC₅₀: Not available DERMAL LD₅₀: Not available

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: N/A Shipping name: N/A Hazard Class: N/A Packing group: N/A Exceptions: Ltd Qty. N/A

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (232-679-6)

16. OTHER INFORMATION

Disclaimer

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. LAB-AIDS® makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond LAB-AIDS, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

Version: SDS_233.01.00



Pictogram:

Version: SDS 440.02.00 Revision Date: January 26, 2016

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: Powdered Enzyme

Alternative names: Fungal amylase, Alpha-Amylase.

Product Number: 25R-6EA.

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

Identified uses: For laboratory and educational use only.

1.3 Details of the supplier of the safety data sheet

Lab-Aids, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA. Company:

Telephone: +1 800 381 8003 +1 631 820 8268. Fax:

1.4 Emergency telephone number

CHEMTREC 1 800 424-9300. Emergency number:

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS classification

Eye Irrit. (Category 2B), H320; Skin Irrit. (Category 2), H315

Resp. Sen. (Category 1) H334

Specific Target Organ Toxicity, Single Exposure, Respiratory Irritant. (Category 3) H335

2.2 Label elements, including precautionary statements Signal word: Danger

H320- Causes eye irritation. H315-Causes skin irritation, H334-May cause allergy or asthma symptoms or breathing difficulties Hazards statements:

if inhaled, H335-May cause respiratory Irritation.

P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection Precautionary statements:

2.3 Hazards not otherwise classified: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: N/A

Chemical Name	Product identifier	%	GHS-US classification
Fungal amylase	CAS# 9001-19-8	70-90%	Eye Irrit. 2B, Skin Irrit. H315; Resp. Sen. 1, H334; STOT SE. 3, H335
Potato dextrin	CAS# 9004-53-9	10-30%	Not classified
Maltodextrin	CAS# 9050-36-6	Remainder%	Not classified

3.3 Chemicals where a trade secret is claimed: Any concentration shown as a range is to protect confidentiality, or is it due to batch variation.

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention if necessary.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek medical attention if irritation develops.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation develops.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Not flammable

Suitable extinguishing media: Use extinguishing methods for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Not available.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.

6.2 Emergency procedures: Restrict unprotected personnel from the area.

6.3 Methods and material used for containment and cleanup procedure: Sweep up and dispose of in a suitable container. Wash spill area with soap and

7. HANDLING AND STORAGE

7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Use hood or with adequate ventilation. Wash hands thoroughly after handling.

7.2 Storage: Keep container in cool, well-ventilated area. Keep It tightly closed.

7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: Not available

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid

Appearance: Off white to tan powder.

Odor: No odor
pH: Not available

Vapor Pressure (mm Hg): N/A Vapor Density: N/A

Evaporation Rate: N/A

Viscosity: N/A
Flash point: Not available

Flash point: Not available Autoignition: Not available Boiling point: Not available
Melting point: Not available
Freezing point: Not available
Decomposition temp: Not available
Solubility: Partially soluble in water
Specific gravity (H₂O = 1): Not available
Percent volatile (%): Not available
Morecular formula: Not available

Molecular weight: Not available

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Excessive heat.
Incompatibilities: Not available

Hazardous decomposition: Not available. Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: May cause mild eye irritation. Skin: May cause mild skin irritation. Inhalation: May cause mild irritation to the respiratory tract. Repeated and chronic overexposure may trigger allergic respiratory reaction in susceptible individuals. Ingestion: Lactase is not expected to cause any acute effects.

ORAL LD₅₀: No information available DUST LC₅₀: No information available

Carcinogenicity:

California prop 65: Not listed.

12. ECOLOGICAL INFORMATION

The product is readily biodegradable

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: Not available Shipping name: Not controlled.

Hazard Class: N/A
Packing group: N/A
Exceptions: N/A

15. REGULATORY INFORMATION

TSCA-listed.

16. OTHER INFORMATION

Disclaimer

The Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Lab-Aids, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal regulations, or insurance mandates, and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations or methods of handling, storage, use and disposal of the product(s) described are beyond Lab-Aids, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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Version: SDS_440.02.00 Revision Date: January 26, 2016



Version: SDS 453.01.00 Revision Date: February 18, 2016

1. IDENTIFICATION

1.1 Product Identifiers

Product Name: Glucose Test Tablets Alternative names: Reagent Tablets. Product Number: 25R-8EA

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

For laboratory and educational use only

1.3 Details of the supplier of the safety data sheet

Company: Lab-Aids, Inc, 17 Colt Ct., Ronkonkoma, NY 11779, USA

Telephone: +1 800 381 8003. Fax: +1 631 820 8268

1.4 Emergency telephone number

CHEMTREC 1 800 424-9300 Emergency number:

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS classification

Identified uses:

Acute, Tox. Dermal (Category 4), H312

Skin Corr. (Category 1A), H314; Eye dam. (Category 1), H318

Corrosive to metals (Category 1) H290 Aquatic Chronic Toxicity (Category 3) H412

2.2 Label elements, including precautionary statements

Signal word: Danger

Hazards statements:

H312 Harmful in contact with skin, H314— Corrosive to skin, H318— Causes serious eye damage, H412-Very toxic to aquatic life with long lasting effects. H290-Corrosive to metals, H312-Harmful in contact with skin.

Pictogram:

Precautionary statements: P264 - Wash skin thoroughly after handling, P280 - Wear protective gloves, eye protection, P273-Avoid release to the environment, P301+P312+330-IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance: Yes

Product identifier	%	GHS-US classification
CAS# 1310-73-2	35%	Acute Tox. 4, H312; Met. Corr. 1, H290; Eye Dam. 1, H318; Skin Corr. 1A H314
CAS#7758-99-8	3%	Acute Tox. 3 (Oral), H301; Aquatic Acute 1, H400, Aquatic Chronic 1, H410
	CAS# 1310-73-2	CAS# 1310-73-2 35%

3.3 Chemicals where a trade secret is claimed: None

4. FIRST AID MEASURE

4.1 Description of the first aid measure:

INGESTION: Never give anything by mouth to unconscious person. Rinse mouth and get conscious person drink a glass of milk or water. Do NOT induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

INHALATION: Remove to fresh air. Get medical attention if necessary.

EYE CONTACT: Wash immediately with plenty of water, and continue washing for at least 15min., occasionally lifting upper and lower eyelids. Seek immediate medical attention.

SKIN CONTACT: Flush thoroughly with mild soap and water. Remove contaminated clothing. Get medical attention if irritation, or burns develop.

4.2 Most important symptoms and effects, both acute and delayed: Refer to section 11.

4.3 Indication of any immediate medical attention and special treatment needed: No additional information available.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Not flammable

Suitable extinguishing media: Use extinguishing methods for surrounding fires.

5.2 Special hazard arising from the substance or mixture: Sodium oxides.

5.3 Advice for firefighters: Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Wear laboratory grade gloves, eye protection and a lab coat.

6.2 Emergency procedures: Restrict unprotected personnel from the area.

6.3 Methods and material used for containment and cleanup procedure: Use adequate tools to put the spilled solid in a appropriate waste disposal container, or reuse if not contaminated. Ventilate and wash the spill area with soap and water.

7. HANDLING AND STORAGE

7.1 Precaution for safe handling: Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Use only under adult supervision. Avoid breathing vapor, Use hood or with adequate ventilation. Wash hands thoroughly after handling.
7.2 Storage: Keep container in cool, well-ventilated area. Keep It tightly closed. Hygroscopic.

7.3 incompatibility: Refer to section 10.

8.1 Control parameters: ACGIH: TWA: 2mg/m³ as sodium hydroxide; 1 mg/m³ TWA (dust and mist, as Cu) 0.2 mg/m³ TWA (fume) copper sulfate

8.2 Exposure controls: Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits.

Respiratory protection: Non should be needed if normal laboratory handling at room temperature.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid. Appearance: tablets. Odor: Not available pH: Alkaline

Vapor Pressure (mm Hg): Not available Vapor Density: Not available Evaporation Rate: Not available Viscosity: Not available Flash point: Not available

Boiling point: 1388°C (2530.4°F)
Melting point: 323°C (613.4°F)
Freezing point: Not available
Decomposition temp: Not available
Solubility: Miscible in water
Specific gravity (H₂O = 1): 2.13
Percent volatile (%): Not available
Molecular formula: NaOH
Molecular weight: 40

10. STABILITY AND REACTIVITY

Chemical Stability: Stable

Autoignition: Not available

Conditions to Avoid: Water, moist air and incompatibles .

Incompatibilities: Oxidizing agents, metals, acids, organic compounds.

Hazardous decomposition: Sodium oxide, Reacts with metals to form flammable and explosive hydrogen gas.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects: Eye: Causes severe eye irritations and burns. Skin: Causes severe skin irritations and burns. Inhalation: Harmful if inhaled. May cause severe irritation or burns to the respiratory tract and mucous membrane. Ingestion: Causes burns of the mouth, throat and stomach. May be fatal if swallowed. May cause severe and permanent damage to the digestive tract. Individuals with Wilson's disease may be affected by ingestion of elemental copper. Hereditary metabolic disorder involving deficiency in the copper binding and transport ceruloplasmin.

Acute oral toxicity ORAL LD₅₀: not available Acute vapor toxicity IHL-LC₅₀: not available DERMAL LD₅₀: 1350mg/kg [Rabbit] as sodium hydroxide Acute toxicity ORAL LD₅₀: 300mg/kg [Rat] as copper sulfate Acute toxicity DERMAL LD₅₀: >2000mg/kg [Rat] as copper sulfate Acute vapor toxicity IHL-LC₅₀: Not available Lowest Published Lethal Dose Oral-LDL [Human] 1088mg/kg as copper sulfate

Carcinogenicity:

California prop 65: Not classified

12. ECOLOGICAL INFORMATION

LC₅₀ [Fathead minnow (Pimephales romelas)] 0.6752mg/L 96h as Copper sulfate. [Water flea (Daphnia magna)] 0.147-0.227mg/L 72h as copper sulfate. C₅₀ Oncorhynchus mykiss 45.4 mg/L 96h as sodium hydroxide.

13. DISPOSAL CONSIDERATION

Disposal of in accordance with all local, state, and federal regulations, or contact with a licensed chemical disposal agency.

14. TRANSPORT INFORMATION

UN number: 1823

Shipping name: Sodium hydroxide, solid

Hazard Class: 8
Packing group: PG II
Exceptions: Ltd Qty. 1kg

15. REGULATORY INFORMATION

TSCA-listed, EINECS-listed (215-185-5). WHMIS (Canada): CLASS E: Corrosive solid. DSCL (EEC): R35-Causes severe burns.

16. OTHER INFORMATION

Disclaimer:

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Version: SDS_453.01.00 Revision Date: February 18, 2016