## SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **LITHIUM calibrator set**

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

- This reagent is used to determine the content of lithium in human serum and plasma.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Arena BioScien, SEA
- Address of Manufacturer: Block 5, Street 9 Ismailia free zone. Ismailia- Egypt
- Telephone: +202 21813500/ +201113102057
- Email: admin@arenabioscientific.com

## SECTION 2 Hazards identification

GHS Label elements, including precautionary statements
Signal word: Danger
Precautionary statements
P260 : Do not breathe dust/fume/gas/mist/vapours/spray.
P231+P232: Handle under inert gas. Protect from moisture.
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P422: Store contents under …
P405: Store locked up.
P402+P404: Store in a dry place. Store in a closed container.
P370+P378: In case of fire: Use … for extinction.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
Hazard statements
H314: Causes severe skin burns and eye damage
H260: In contact with water releases flammable gases which may ignite spontaneously

## SECTION 3 Composition/information on ingredients

Substance
Product name: Lithium
Synonyms: Li,Lithium
CAS: 7439-93-2
EC number: 231-102-5
MF: Li
MW: 6.94

## SECTION 4 First aid measures

Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

## SECTION 5 Fire-fighting measures

- Flash Point (Method used): N/A Flammable Limits – LEL: N/A UEL: N/A
- Extinguishing Media:
  Use fire extinguishing media appropriate for site conditions.
- Special Fire Procedures:
  Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.

## SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources.
- Use non-sparking hand tools.
- Avoid raising dust.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions
- Do not allow to enter public sewers and watercourses.
- Avoid scattering in the environment.

6.3 Methods and material for containment and cleaning up
- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

## SECTION 7 Handling and storage

7.1 Precautions for safe handling
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities
- Storage temperature: see component label
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Keep away from: heat sources, acids.

## SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- There are no recommended or established controls for this product.

8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow OSHA respirator regulations (29CFR1910.134) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide worker protection for given working conditions, level of airborne concentration, and presence of sufficient oxygen.- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



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## SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Odor: No information available
- pH: N/A
- Melting point/Range: N/A
- Boiling Point/Range: N/A
- Flashpoint : No information available
- Evaporation Rate(nBuAc = 1): N/A
- Flammability: No information available
- Vapor Pressure, mm Hg @ 20oC: N/A
- Vapor Density(air = 1): N/A
- Specific Gravity (water = 1): N/A
- Solubility in water: Soluble

9.2 Other information

- No information available

## SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid:

Heat, moisture, incompatibles.

Picric acid: dangerous explosion hazard when dry. Becomes increasingly shock, heat, and friction sensitive as it loses its moisture.

10.5 Incompatible materials

- Sodium hydroxide : water, acid, flammable liquids, and metals ( eg. Aluminium, tin , zinc ).
- Picric acid: metals – copper, lead, zinc, aluminium + water, ammonia, concrete, plaster, salts, oxidizers.

10.6 Hazardous Decomposition Products

- Sodium hydroxide: reacts with acid and is corrosive in moist air to metals (e.g. Zinc, tin, lead) to form combustible hydrogen gas.
- Picric acid: explosive decomposition is likely if material is involved in a fire.

## SECTION 11 Toxicological information

11.1 Information on toxicological effects

- Sodium hydroxide is considered a severe skin and eye irritant based on irritation data: skin, rabbit 500 mg / 24 hours ; eye, rabbit 50 micrograms/24 hours.
- Picric acid: LD50 ( rat, oral)= 200 mg/kg. Investigated as mutagen.
- Carcinogenicity: N/A
- Reproductive effects:N/A.
- Target organ Effects:

Picric acid : eyes, skin, kidneys, liver, blood. Sodium hydroxide: skin, eyes, respiratory tract.

- Teratogenicity: No information available.

## SECTION 12 Ecological information

12.1 Environmental Fate / Stability:

The sodium hydroxide solution may be hazardous to the environment, special attention should be given to water organisms.

12.2 Effect of Material on plants or animals: N/A

12.3 Effect of Chemical on Aquatic Life: N/A

## SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined.

Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

## SECTION 14 Transport information

14.1 UN Number

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
- Not Classified
14.8 Domestic Surface Transport (US DOT)
- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable
14.9 International Road/Rail (ADR/RID)
- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable
14.10 Ocean/Sea (IMO/IMDG)
- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable
14.11 Air (ICAO/IATA)
- Proper Shipping Name: Not applicable
- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

## SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

## SECTION 16 Other information

Date of Preparation: September 2019
Revision: Rev. 0
Replaces: New issue
This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Arena BioScien Manufacturers, SEA. shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

ARENA BioScien

# Safety Data Sheet

## SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **LITHIUM R1**

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

- This reagent is used to determine the content of lithium in human serum and plasma.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Arena BioScien, SEA
- Address of Manufacturer: Block 5, Street 9 Ismailia free zone. Ismailia- Egypt
- Telephone: +202 21813500/ +201113102057
- Email: admin@arenabioscientific.com

## SECTION 2 Hazards identification

GHS Label elements, including precautionary statements
Signal word: Danger
Precautionary statements
P260 : Do not breathe dust/fume/gas/mist/vapours/spray.
P231+P232: Handle under inert gas. Protect from moisture.
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P422: Store contents under …
P405: Store locked up.
P402+P404: Store in a dry place. Store in a closed container.
P370+P378: In case of fire: Use … for extinction.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
Hazard statements
H314: Causes severe skin burns and eye damage
H260: In contact with water releases flammable gases which may ignite spontaneously

## SECTION 3 Composition/information on ingredients

Substance
Product name: Lithium
Synonyms: Li,Lithium
CAS: 7439-93-2
EC number: 231-102-5
MF: Li
MW: 6.94

## SECTION 4 First aid measures

Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

## SECTION 5 Fire-fighting measures

- Flash Point (Method used): N/A Flammable Limits – LEL: N/A UEL: N/A
- Extinguishing Media:
  Use fire extinguishing media appropriate for site conditions.
- Special Fire Procedures:
  Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.

## SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources.
- Use non-sparking hand tools.
- Avoid raising dust.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions
- Do not allow to enter public sewers and watercourses.
- Avoid scattering in the environment.

6.3 Methods and material for containment and cleaning up
- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

## SECTION 7 Handling and storage

7.1 Precautions for safe handling
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities
- Storage temperature: see component label
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Keep away from: heat sources, acids.

## SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- There are no recommended or established controls for this product.

8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow OSHA respirator regulations (29CFR1910.134) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide worker protection for given working conditions, level of airborne concentration, and presence of sufficient oxygen.- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



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## SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Odor: No information available
- pH: N/A
- Melting point/Range: N/A
- Boiling Point/Range: N/A
- Flashpoint : No information available
- Evaporation Rate(nBuAc = 1): N/A
- Flammability: No information available
- Vapor Pressure, mm Hg @ 20oC: N/A
- Vapor Density(air = 1): N/A
- Specific Gravity (water = 1): N/A
- Solubility in water: Soluble

9.2 Other information

- No information available

## SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid:

Heat, moisture, incompatibles.

Picric acid: dangerous explosion hazard when dry. Becomes increasingly shock, heat, and friction sensitive as it loses its moisture.

10.5 Incompatible materials

- Sodium hydroxide : water, acid, flammable liquids, and metals ( eg. Aluminium, tin , zinc ).
- Picric acid: metals – copper, lead, zinc, aluminium + water, ammonia, concrete, plaster, salts, oxidizers.

10.6 Hazardous Decomposition Products

- Sodium hydroxide: reacts with acid and is corrosive in moist air to metals (e.g. Zinc, tin, lead) to form combustible hydrogen gas.
- Picric acid: explosive decomposition is likely if material is involved in a fire.

## SECTION 11 Toxicological information

11.1 Information on toxicological effects

- Sodium hydroxide is considered a severe skin and eye irritant based on irritation data: skin, rabbit 500 mg / 24 hours ; eye, rabbit 50 micrograms/24 hours.
- Picric acid: LD50 ( rat, oral)= 200 mg/kg. Investigated as mutagen.
- Carcinogenicity: N/A
- Reproductive effects:N/A.
- Target organ Effects:

Picric acid : eyes, skin, kidneys, liver, blood. Sodium hydroxide: skin, eyes, respiratory tract.

- Teratogenicity: No information available.

## SECTION 12 Ecological information

12.1 Environmental Fate / Stability:

The sodium hydroxide solution may be hazardous to the environment, special attention should be given to water organisms.

12.2 Effect of Material on plants or animals: N/A

12.3 Effect of Chemical on Aquatic Life: N/A

## SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined.

Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

## SECTION 14 Transport information

14.1 UN Number

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
- Not Classified
14.8 Domestic Surface Transport (US DOT)
- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable
14.9 International Road/Rail (ADR/RID)
- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable
14.10 Ocean/Sea (IMO/IMDG)
- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable
14.11 Air (ICAO/IATA)
- Proper Shipping Name: Not applicable
- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

## SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

## SECTION 16 Other information

Date of Preparation: September 2019
Revision: Rev. 0
Replaces: New issue
This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Arena BioScien Manufacturers, SEA. shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.

ARENA BioScien

# Safety Data Sheet

## SECTION 1: Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name: **LITHIUM R2**

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

- This reagent is used to determine the content of lithium in human serum and plasma.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Arena BioScien, SEA
- Address of Manufacturer: Block 5, Street 9 Ismailia free zone. Ismailia- Egypt
- Telephone: +202 21813500/ +201113102057
- Email: admin@arenabioscientific.com

## SECTION 2 Hazards identification

GHS Label elements, including precautionary statements
Signal word: Danger
Precautionary statements
P260 : Do not breathe dust/fume/gas/mist/vapours/spray.
P231+P232: Handle under inert gas. Protect from moisture.
P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P422: Store contents under …
P405: Store locked up.
P402+P404: Store in a dry place. Store in a closed container.
P370+P378: In case of fire: Use … for extinction.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
Hazard statements
H314: Causes severe skin burns and eye damage
H260: In contact with water releases flammable gases which may ignite spontaneously

## SECTION 3 Composition/information on ingredients

Substance
Product name: Lithium
Synonyms: Li,Lithium
CAS: 7439-93-2
EC number: 231-102-5
MF: Li
MW: 6.94

## SECTION 4 First aid measures

Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

## SECTION 5 Fire-fighting measures

- Flash Point (Method used): N/A Flammable Limits – LEL: N/A UEL: N/A
- Extinguishing Media:
  Use fire extinguishing media appropriate for site conditions.
- Special Fire Procedures:
  Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.

## SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Shut off all ignition sources.
- Use non-sparking hand tools.
- Avoid raising dust.
- Remove contaminated clothing.
- Wear protective clothing as per Section 8.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions
- Do not allow to enter public sewers and watercourses.
- Avoid scattering in the environment.

6.3 Methods and material for containment and cleaning up
- Absorb spillage in inert material and shovel up.
- Place in sealable container.
- Seal containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

## SECTION 7 Handling and storage

7.1 Precautions for safe handling
- Do not breathe dust.
- Avoid contact with skin and eyes.
- Do not eat, drink, or smoke when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities
- Storage temperature: see component label
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a dry place.
- Keep away from: heat sources, acids.

## SECTION 8 Exposure controls/personal protection

8.1 Control parameters

- There are no recommended or established controls for this product.

8.2 Exposure controls

- Eyewash bottles should be available.
- Engineering controls should be provided to prevent the need for ventilation.
- Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow OSHA respirator regulations (29CFR1910.134) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide worker protection for given working conditions, level of airborne concentration, and presence of sufficient oxygen.- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



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## SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Odor: No information available
- pH: N/A
- Melting point/Range: N/A
- Boiling Point/Range: N/A
- Flashpoint : No information available
- Evaporation Rate(nBuAc = 1): N/A
- Flammability: No information available
- Vapor Pressure, mm Hg @ 20oC: N/A
- Vapor Density(air = 1): N/A
- Specific Gravity (water = 1): N/A
- Solubility in water: Soluble

9.2 Other information

- No information available

## SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid:

Heat, moisture, incompatibles.

Picric acid: dangerous explosion hazard when dry. Becomes increasingly shock, heat, and friction sensitive as it loses its moisture.

10.5 Incompatible materials

- Sodium hydroxide : water, acid, flammable liquids, and metals ( eg. Aluminium, tin , zinc ).
- Picric acid: metals – copper, lead, zinc, aluminium + water, ammonia, concrete, plaster, salts, oxidizers.

10.6 Hazardous Decomposition Products

- Sodium hydroxide: reacts with acid and is corrosive in moist air to metals (e.g. Zinc, tin, lead) to form combustible hydrogen gas.
- Picric acid: explosive decomposition is likely if material is involved in a fire.

## SECTION 11 Toxicological information

11.1 Information on toxicological effects

- Sodium hydroxide is considered a severe skin and eye irritant based on irritation data: skin, rabbit 500 mg / 24 hours ; eye, rabbit 50 micrograms/24 hours.
- Picric acid: LD50 ( rat, oral)= 200 mg/kg. Investigated as mutagen.
- Carcinogenicity: N/A
- Reproductive effects:N/A.
- Target organ Effects:

Picric acid : eyes, skin, kidneys, liver, blood. Sodium hydroxide: skin, eyes, respiratory tract.

- Teratogenicity: No information available.

## SECTION 12 Ecological information

12.1 Environmental Fate / Stability:

The sodium hydroxide solution may be hazardous to the environment, special attention should be given to water organisms.

12.2 Effect of Material on plants or animals: N/A

12.3 Effect of Chemical on Aquatic Life: N/A

## SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined.

Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

## SECTION 14 Transport information

14.1 UN Number

- Not classified as hazardous for transport

14.2 UN Proper Shipping Name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5 Environmental hazards

- Not Classified

14.6 Special precautions for user

- Not Classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
- Not Classified
14.8 Domestic Surface Transport (US DOT)
- Proper Shipping Name: Not applicable
- DOT UN No.: Not applicable
- DOT Hazard Class: Not applicable
- DOT Packing Group: Not applicable
14.9 International Road/Rail (ADR/RID)
- Proper Shipping Name: Not applicable
- ADR UN No.: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable
- Tunnel Code: Not applicable
14.10 Ocean/Sea (IMO/IMDG)
- Proper Shipping Name: Not applicable
- IMDG UN No.: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Packing Group: Not applicable
14.11 Air (ICAO/IATA)
- Proper Shipping Name: Not applicable
- ICAO Un No.: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

## SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

## SECTION 16 Other information

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