



Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 04/20/2019

Reviewed on 04/20/2019

1 Identification

- **Product Identifier**
- **Trade Name: Sodium Hydroxide 5%**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Strong Inorganic Hydroxide
- **Application of the substance / the mixture:** Industry Specific Application
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Nor Cal Pressure Washer Equipment
250 South Maple
G
South San Francisco, CA 94080
+1-650-952-9997
g9786@aol.com
www.norcalpressurewash.com
- **Emergency telephone number:** 1-800-424-9300 (CHEMTREC)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Corrosion

Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.



Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Sodium Hydroxide
- **Hazard statements:**
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
- **Precautionary statements:**
P261 Avoid breathing dust.
P302+P352 If on skin: Wash with plenty of water.

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- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P332+P313 If skin irritation occurs: Get medical advice.
- P363 Wash contaminated clothing before reuse.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Unknown acute toxicity:

This value refers to knowledge of known, established toxicological or ecotoxicological values. 0 % of the mixture consists of component(s) of unknown toxicity.

- Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- NFPA ratings (scale 0 - 4)**



HMIS-ratings (scale 0 - 4)



- Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/Information on Ingredients

- Chemical characterization: Mixtures**
- Description:** Mixture of substances listed below with non-hazardous additions.

Dangerous Components:

1310-73-2	Sodium Hydroxide	⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	5%
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Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- Description of first aid measures**
- General information:** Immediately remove any clothing soiled by the product.
- After inhalation:**
Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- After skin contact:**
Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention.
- After eye contact:**
Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention. Continue rinsing eyes during transport to hospital.
- After swallowing:**
Rinse mouth with water. Give 3-4 glasses of water or milk to dilute stomach contents. Do NOT induce vomiting. If vomiting occurs, give more water or milk. Never give anything by mouth to an unconscious person. Get immediate medical attention.



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- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** Sodium Oxides
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:**
Use personal protective equipment.
Keep from contacting skin or eyes.
Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

• PAC-1:		
1310-73-2	Sodium Hydroxide	0.5 mg/m ³
• PAC-2:		
1310-73-2	Sodium Hydroxide	5 mg/m ³
• PAC-3:		
1310-73-2	Sodium Hydroxide	50 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Avoid breathing vapors or mist.
Avoid contact with eyes, skin, or clothing.
Use approved, original containers only.
Keep containers closed when not in use.
Do not expose containers to open flame, excessive heat, or direct sunlight.



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- Do not puncture or drop containers.
- Handle with care and avoid spillage on the floor.
- Keep material out of reach of children.
- Keep material away from incompatible materials.
- Wash thoroughly after handling.
- Ensure adequate ventilation.

• **Information about protection against explosions and fires:** No special measures required.

• **Conditions for safe storage, including any incompatibilities**

• **Storage**

• **Requirements to be met by storerooms and receptacles:**

Keep away from heat, sparks and flames.

Do not store in direct sunlight.

Store away from, strong acids, strong oxidizing agents, organic materials, water, chlorinated solvents, reactive metals (Zinc & Aluminum) and their alloys (Brass), Copper and its alloys, Alkali metals (Lithium, Sodium, Potassium, etc.), Tin & Tin oxides, Lead, Phosphorous & Phosphorous Pentoxide, Nitro compounds (Nitromethane, etc.) Azides and Anhydrides.

• **Information about storage in one common storage facility:** Not required.

• **Further information about storage conditions:** Keep receptacle tightly sealed.

• **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

• **Additional information about design of technical systems:** No further data; see section 7.

• **Control parameters:**

• **Components with occupational exposure limits:**

1310-73-2 Sodium Hydroxide

PEL Long-term value: 2 mg/m³

REL Ceiling limit value: 2 mg/m³

TLV Ceiling limit value: 2 mg/m³

• **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

• **Exposure controls:**

• **Personal protective equipment**

• **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

• **Breathing equipment:**

Have self-contained breathing apparatus, positive pressure, MSHA/NIOSH (approved or equivalent) available in case of spillage or equipment failure.

• **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Select glove material based on penetration times, rates of diffusion and degradation.



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Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Viton, Nitrile or Buna rubber.

Penetration time of glove material:

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection:



Tightly sealed goggles

Body protection:



Apron

Limitation and supervision of exposure into the environment: None

9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance:

- Form:** Liquid
- Color:** Clear, colorless
- Odor:** Odorless
- Odor threshold:** Not determined.

pH-value @ 20 °C (68 °F): 14

Change in condition

- Melting point/Melting range:** -12 °C (10.4 °F)
- Boiling point/Boiling range:** 105 °C (221 °F)

- Flash point:** None
- Flammability (solid, gaseous):** Not determined.
- Ignition temperature:** Not applicable
- Decomposition temperature:** Not determined.
- Auto igniting:** Product is not self-igniting.
- Danger of explosion:** Product does not present an explosion hazard.
- Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- Vapor pressure:** Not applicable.



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- **Density @ 20 °C (68 °F):** 1.515 g/cm³ (12.6427 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with:**
 - Water:** Fully Soluble
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Solvent content:**
- **VOC content:** 0.00 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Incompatibilities, flames, ignition sources.
- **Incompatible materials:** Strong acids, strong oxidizing agents, organic materials, chlorinated solvents, reactive metals (Zinc & Aluminum) and their alloys (Brass), Copper and its alloys, Alkali metals (Lithium, Sodium, Potassium, etc.), Tin & Tin Oxides, Lead, Phosphorous & Phosphorous Pentoxide, Nitro compounds (Nitromethane, etc.), Azides, Anhydrides, Halogens.
- **Hazardous decomposition products:** Sodium Oxides.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

• LD/LC50 values that are relevant for classification:		
1310-73-2 Sodium Hydroxide		
Oral	LD50	2,000 mg/kg (Rat)

- **Primary irritant effect:**
- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:** Strong irritant with the danger of severe eye injury. Corrosive effect. Causes serious eye irritation.
- **Additional toxicological information:** The product shows the following dangers according to internally approved calculation methods for preparations:
 - Harmful
 - Corrosive



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Swallowing will lead to a corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories:

IARC (International Agency for Research on Cancer):
None of the ingredients are listed.
NTP (National Toxicology Program):
None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

Toxicity:

Aquatic toxicity:
1310-73-2 Sodium Hydroxide
EC50 40 mg/l (Daphnia)

- Persistence and degradability:** No further relevant information available.
- Behavior in environmental systems:**
- Bioaccumulative potential:** No further relevant information available.
- Mobility in soil:** No further relevant information available.
- Additional ecological information:**
- General notes:**
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- Results of PBT and vPvB assessment:**
- PBT:** Not applicable.
- vPvB:** Not applicable.
- Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- Waste treatment methods**
- Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Observe all federal, state and local environmental regulations when disposing of this material.
- Uncleaned packaging**
- Recommendation:** Disposal must be made according to official regulations.
- Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- UN-Number:**
- DOT, ADR/ADN, IMDG, IATA** UN1824



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- **UN proper shipping name:** Sodium hydroxide solution
- **DOT** UN1824 SODIUM HYDROXIDE SOLUTION
- **ADR/ADN** SODIUM HYDROXIDE SOLUTION
- **IMDG, IATA**
- **Transport hazard class(es):**
- **DOT**



- **Class:** 8 Corrosive substances
- **Label:** 8

· **ADR/ADN**



- **Class:** 8 (C5) Corrosive substances
- **Label:** 8

· **IMDG, IATA**



- **Class:** 8 Corrosive substances
- **Label:** 8
- **Packing group:** II
- **DOT, ADR/ADN, IMDG, IATA** II
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Corrosive substances
- **Danger code (Kemler):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups:** Alkalis
- **Stowage Category** A
- **Segregation Code** SG35 Stow "separated from" SGG1-acids
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations:** On passenger aircraft/rail: 1 L
On cargo aircraft only: 30 L

· **ADR/ADN**

- **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 500 g

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- **IMDG**
- **Limited quantities (LQ):** 1L
- **Excepted quantities (EQ):** Code: E2
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 500 g
UN 1824 SODIUM HYDROXIDE SOLUTION, 8, II
- **UN "Model Regulation":**

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

Section 355 (extremely hazardous substances):	
None of the ingredients are listed.	

Section 313 (Specific toxic chemical listings):	
None of the ingredients are listed.	

TSCA (Toxic Substances Control Act):		
1310-73-2	Sodium Hydroxide	ACTIVE

Hazardous Air Pollutants	
None of the ingredients are listed.	

• **California Proposition 65:**

Chemicals known to cause cancer:	
None of the ingredients are listed.	

• **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.	
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• **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.	
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• **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.	
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• **New Jersey Right-to-Know List:**

All ingredients are listed.	
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• **New Jersey Special Hazardous Substance List:**

1310-73-2	Sodium Hydroxide	CO, R1
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• **Pennsylvania Right-to-Know List:**

All ingredients are listed.	
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• **Pennsylvania Special Hazardous Substance List:**

1310-73-2	Sodium Hydroxide	E
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• **Carcinogenic categories:**

• **EPA (Environmental Protection Agency):**

None of the ingredients are listed.	
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• **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.	
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• **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

• **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

• **Hazard pictograms:**



• **Signal word:** Danger

• **Hazard-determining components of labeling:**

Sodium Hydroxide

• **Hazard statements:**

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.

• **Precautionary statements:**

- P261 Avoid breathing dust.
- P302+P352 If on skin: Wash with plenty of water.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P332+P313 If skin irritation occurs: Get medical advice.
- P363 Wash contaminated clothing before reuse.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **National regulations:**

None of the ingredients are listed.

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

• **Date of last revision/ revision number:** 04/20/2019 / 22

• **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent



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LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

• *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106