

Safety Data Sheet (SDS)

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

Issue date 04/07/2018

Reviewed on 04/07/2018

1 Identification

- **Product Identifier**
- **Trade Name: HD STEAM CLEANER**
- **Product Number: K-51B**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description: Strong Alkaline Cleaner**
- **Application of the substance / the mixture: Built Detergent**
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Kaady Chemical Corp.
2545 SW SPRING GARDEN ST STE 120
PORTLAND, OR 97219
1-510-562-9788
www.kaadychemical.com
- **Emergency telephone number: +1-800-424-9300**

2 Hazard(s) Identification

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



GHS05 Corrosion

Met. Corr.1 H290 May be corrosive to metals.

Skin Corr. 1A H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements:**

- **GHS label elements**

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

- **Hazard pictograms:**



GHS05 GHS07

- **Signal word: Danger**

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

Sodium Hydroxide

Potassium Hydroxide

- **Hazard statements:**

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

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Precautionary statements:

- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.
- P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- 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).
- P337 If eye irritation persists:
- P362 Take off contaminated clothing.
- P405 Store locked up.
- 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

Non-hazardous components:

Non-Hazardous Components >60%

Chemical characterization: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous Components:

CAS: 1310-73-2 Sodium Hydroxide <15%
⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302

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CAS: 1310-58-3 RTECS: TT 2102000	Potassium Hydroxide ⚠️ Skin Corr. 1A, H314; ⚠️ Acute Tox. 4, H302	<15%
CAS: 7320-34-5 RTECS: JL6735000	Tetrapotassium Pyrophosphate ⚠️ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	<10%

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:**
Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.
- **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. Wash contaminated clothing before reuse. If symptoms persist, 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. Seek immediate medical attention.
- **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:**
CO2, sand, dry chemical, water mist or alcohol resistant foam.
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:**
Carbon oxides
Nitrogen oxides (NOx)
Phosphorous oxides
Potassium oxides
Sodium oxides
Sulfur oxides

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- **Advice for firefighters:**
- **Protective equipment:**
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:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
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
1310-58-3	Potassium Hydroxide	0.18 mg/m ³
7320-34-5	Tetrapotassium Pyrophosphate	61 mg/m ³
· PAC-2:		
1310-73-2	Sodium Hydroxide	5 mg/m ³
1310-58-3	Potassium Hydroxide	2 mg/m ³
7320-34-5	Tetrapotassium Pyrophosphate	680 mg/m ³
· PAC-3:		
1310-73-2	Sodium Hydroxide	50 mg/m ³
1310-58-3	Potassium Hydroxide	54 mg/m ³
7320-34-5	Tetrapotassium Pyrophosphate	1,200 mg/m ³

7 Handling and Storage

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

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- Handle with care and avoid spillage on the floor (slippage).
- Keep material out of reach of children.
- Keep material away from incompatible materials.
- Wash thoroughly after handling.
- **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:** No special requirements.
- **Information about storage in one common storage facility:**
- Avoid breathing vapors or mist.
- Avoid contact with eyes, skin, or clothing.
- Keep containers closed when not in use.
- Do not expose containers to open flame, excessive heat, sparks or direct sunlight.
- Do not puncture or drop containers.
- Handle with care and avoid spillage on the floor (slippage).
- Keep material out of reach of children.
- Keep material away from incompatible materials.
- Wash thoroughly after handling.
- **Further information about storage conditions:** None.
- **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:**
- The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
- At this time, the remaining constituent has no known exposure limits.

1310-73-2 Sodium Hydroxide

PEL	Long-term value: 2 mg/m ³
REL	Ceiling limit value: 2 mg/m ³
TLV	Ceiling limit value: 2 mg/m ³

1310-58-3 Potassium Hydroxide

REL	Ceiling limit value: 2 mg/m ³
TLV	Ceiling limit value: 2 mg/m ³

- **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:**
- The usual precautionary measures for handling chemicals should be followed.
- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- **Breathing equipment:**
- Have self-contained breathing apparatus, positive pressure, MSHA/NIOSH (approved or equivalent) available in case of spillage or equipment failure.

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· 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.

· 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.

Neoprene, 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:



Safety glasses recommended.

9 Physical and Chemical Properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Color:	Clear amber
· Odour:	Glycol-Ether Like
· Odor threshold:	Not determined.

· pH-value @ 20 °C (68 °F): >13.0

· Change in condition

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	>100 °C (>212 °F)

· Flash point: None

· Flammability (solid, gaseous): Not applicable.

· 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.

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· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density @ 20 °C (68 °F):	1.270 g/cm ³ (10.598 lbs/gal)
· Relative density:	Not determined.
· Vapor density:	Not determined.
· Evaporation rate:	Not determined.
· Solubility in / Miscibility with:	
Water:	Miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· 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:**
Peroxides, Nitric Acid, Strong Acids, Strong Oxidizing Agents, Chlorinated Solvents, Phosphorous, Tin Oxides, Aluminum, Tin, Zinc or Brass.
- **Hazardous decomposition products:**
Carbon Oxides, Nitrogen Oxides (NOx), Potassium Oxides, Phosphorous Oxides, Sodium Oxides, Sulfur 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)
1310-58-3 Potassium Hydroxide		
Oral	LD50	273 mg/kg (Rat)
Inhalative	LC50/96 hours	80 mg/l (Daphnia)

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Trade Name: HD STEAM CLEANER

7320-34-5 Tetrapotassium Pyrophosphate

Oral	LD50	>2,000 mg/kg (Mouse)
Dermal	LD50	>4,640 mg/kg (Rabbit)

Primary irritant effect:

- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:** No irritating effect.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

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.

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 increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, 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.

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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 packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** UN3266
- **UN proper shipping name:**
- **DOT** Corrosive liquid, basic, inorganic, n.o.s.
- **ADR/ADN** UN3266 Corrosive liquid, basic, inorganic, n.o.s.
- **IMDG, IATA** CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
- **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:**
- **DOT, ADR/ADN, IMDG, IATA** III

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Trade Name: HD STEAM CLEANER

· Environmental hazards:	Not applicable.
· Special precautions for user:	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups:	Alkalis
· 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: 5 L On cargo aircraft only: 60 L
· ADR/ADN	
· Excepted quantities (EQ):	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ):	5L
· Excepted quantities (EQ):	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., 8, III

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
1310-58-3	Potassium Hydroxide
7320-34-5	Tetrapotassium Pyrophosphate

· **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.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· New Jersey Right-to-Know List:

1310-73-2 Sodium Hydroxide

1310-58-3 Potassium Hydroxide

· New Jersey Special Hazardous Substance List:

1310-73-2	Sodium Hydroxide	CO, R1
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1310-58-3	Potassium Hydroxide	CO, R1
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· Pennsylvania Right-to-Know List:

1310-73-2 Sodium Hydroxide

1310-58-3 Potassium Hydroxide

· Pennsylvania Special Hazardous Substance List:

1310-73-2	Sodium Hydroxide	E
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1310-58-3	Potassium Hydroxide	E
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· Carcinogenic categories:

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· TLV (Threshold Limit Value established by ACGIH):

None of the ingredients are listed.

· 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:



GHS05 GHS07

· Signal word: Danger

· Hazard-determining components of labeling:

Sodium Hydroxide

Potassium Hydroxide

· Hazard statements:

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

· Precautionary statements:

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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- P273 Avoid release to the environment.
 P280 Wear protective gloves / eye protection / face protection.
 P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
 P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 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).
 P337 If eye irritation persists:
 P362 Take off contaminated clothing.
 P405 Store locked up.
 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 preparation / last revision: 04/07/2018 / 24**· 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)

LC50: Lethal concentration, 50 percent

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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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Trade Name: HD STEAM CLEANER*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**** Data compared to the previous version altered.**SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

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