Safety Data Sheet
ALKA-DET® 2

SDS Revision Date: **07/12/2022**

1. Identification

1.1. Product identifier

Product Identity ALKA-DET® 2

Alternate Names

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

Intended use Cage and Rack washing compound

Application Method

1.3. Details of the supplier of the safety data sheet

Company Name Pharmacal Research Labs.,Inc.
562 Captain Neville Dr.
Waterbury, CT 06705, USA

24 hour Emergency Telephone No.:

CHEMTREC (USA) (800) 424-9300

IN CANADA CALL CANUTEC (613) 996-6666

Customer Service: Pharmacal Research Labs.,Inc. 203-755-4908, (800)-243-5350

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Acute Tox. 5;H303	May be harmful if swallowed. (Not adopted by US OSHA)
Skin Corr. 1A;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Aquatic Acute 1; H400	Very toxic to aquatic life.
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Danger

H303 May be harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

P260 Do not breathe mist / vapors / spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 Wash contaminated clothing before reuse.

[Storage]:

P406 Store in corrosive resistant container with a resistant inner liner.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Sodium hypochlorite **CAS Number: 0007681-52-9**	**1.0 - 10**	**Skin Corr. 1B;H314** **Aquatic Acute 1;H400**	**[1]**
Potassium hydroxide. **CAS Number: 0001310-58-3**	**10 - 25**	**Acute Tox. 4;H302** **Skin Corr. 1A;H314**	**[1][2]**

[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15 - 20 minutes.
Call a poison control center or doctor for treatment advice.

Ingestion Do NOT induce vomiting. Rinse mouth and slowly drink several glasses of water. Do NOT give anything by mouth to an unconscious or convulsing person. Call a poison control center or doctor for treatment advice.

4.2. Most important symptoms and effects, both acute and delayed

Overview **Effects of overexposure/signs and symptoms of exposure**
Contact with concentrated material may cause burns to exposed tissue.
See section 2 for further details.

Eyes Causes serious eye damage.

Skin Causes severe skin burns and eye damage.

Ingestion May be harmful if swallowed. (Not adopted by US OSHA)

5. Fire-fighting measures

5.1. Extinguishing media

Use standard fire fighting media on surrounding materials including water spray, foam, and carbon dioxide. (Do not use dry chemical extinguisher containing ammonium compounds.)

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: High temperatures and flames may produce toxic chlorine, hydrogen chloride, carbon monoxide and oxides of potassium, sodium, and phosphorous. At temperatures above 1562F, this product may react with air and reducing sugars (fructose, galactose, arabinose, levulose, lactose, and maltose) in foods or dry whey solids to form toxic carbon monoxide. (The reaction will also occur at lower temperatures, but more slowly.) When a confined space entry must be made, even into an empty tank, be sure to follow all appropriate confined entry procedures (ANSI Z117.1).

Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters

Use full protective clothing and self-contained breathing apparatus. This product may be corrosive to human tissue. Extinguishing media should be suitable for surrounding fire.

ERG Guide No. 154

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Protective clothing and equipment must be worn. Contain spill or leakage in suitable container or holding area. Do not allow drainage to sewers, streams, or storm conduits. Recover with vacuum equipment and flush with water. Neutralize and dispose of in accordance with federal, state, and local regulations.

"EMPTY" CONTAINER WARNINGS: Do not reuse empty container. Triple rinse with water - dispose of in conformance with federal, state, and local regulations.

7. Handling and storage

7.1. Precautions for safe handling

Keep in well ventilated area - store above 10°c (50°f). Use goggles or face shield, rubber gloves, and boots where contact is expected.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Containers should be stored in a cool, dry, well-ventilated area. Exercise due caution to prevent damage to or leakage from the container. Keep containers closed when not in use.

Incompatible materials: Incompatible with strong oxidizers, leather and halogenated compounds. Product will react with 'soft' metals such as aluminum, tin, magnesium, and zinc releasing flammable hydrogen gas.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

Keep out of reach of children.
For professional use only.

Do not mix with any other chemicals unless compatibility has been established by the manufacturer.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0001310-58-3	Potassium hydroxide.	OSHA	No Established Limit
		ACGIH	Ceiling: 2 mg/m3
		NIOSH	C 2 mg/m3
		Supplier	No Established Limit
0007681-52-9	Sodium hypochlorite	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0001310-58-3	Potassium hydroxide.	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007681-52-9	Sodium hypochlorite	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls

Respiratory Use NIOSH/MSHA approved respirator for mist, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

Eyes Chemical splash goggles or face shield

Skin Chemical resistant clothing such as rubber coveralls/apron and boots should be worn. Wear rubber gloves. Gloves must be resistant to corrosive materials. Nitrile or PVC gloves are suitable. Do not use cotton or leather gloves.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to

	maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Light yellow – Dark brown liquid
Odor	Chlorine
Odor threshold	Not Measured
pH	13.5
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	Non Flammable
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** Not Measured **Upper Explosive Limit:** Not Measured
Vapor pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	1.2
Solubility in Water	Soluble (@1 ATM and 25C)
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

Physical property data is approximate of typical value and should not be used for precise design purposes.

10. Stability and reactivity

10.1. Reactivity

Do not allow contact with acids.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Incompatible with strong oxidizers, leather and halogenated compounds. Product will react with 'soft' metals such as aluminum, tin, magnesium, and zinc releasing flammable hydrogen gas.

10.4. Conditions to avoid

Excessive heat and open flame.

Sealed containers may develop explosive pressures under fire conditions. Use water to cool containers exposed to fire.
Avoid contact with Strong Acids

10.5. Incompatible materials

Incompatible with strong oxidizers, strong acids, leather and halogenated compounds. Product will react with 'soft' metals such as aluminum, tin, magnesium, and zinc releasing flammable hydrogen gas.

10.6. Hazardous decomposition products

High temperatures and flames may produce toxic chlorine, hydrogen chloride, carbon monoxide and oxides of potassium, sodium, and phosphorous. At temperatures above 1562F, this product may react with air and reducing sugars (fructose, galactose, arabinose, levulose, lactose, and maltose) in foods or dry whey solids to form toxic carbon monoxide. (The reaction will also occur at lower temperatures, but more slowly.) When a confined space entry must be made, even into an empty tank, be sure to follow all appropriate confined entry procedures (ANSI Z117.1).

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Sodium hypochlorite - (7681-52-9)	5,000.00, Rat - Category: 5	10,000.00, Rabbit - Category: NA	10.50, Rat - Category: 4	No data available	No data available
Potassium hydroxide. - (1310-58-3)	365.00, Rat - Category: 4	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	5	May be harmful if swallowed. (Not adopted by US OSHA)
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	1A	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable

Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Sodium hypochlorite - (7681-52-9)	**0.08, Pimephales promelas**	**0.032, Daphnia magna**	**0.40 (72 hr), Dunaliella primolecta**
Potassium hydroxide. - (1310-58-3)	**Not Available**	**Not Available**	**Not Available**

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT/TDG (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1760	UN1760	UN1760
14.2. UN proper shipping name	Corrosive liquids, n.o.s., (Potassium Hydroxide)	Corrosive liquids, n.o.s., (Potassium Hydroxide)	Corrosive liquids, n.o.s., (Potassium Hydroxide)
14.3. Transport hazard class(es)	**DOT Hazard Class:** 8 **DOT Label:** 8	**IMDG:** 8 **Sub Class:** Not Applicable	**Air Class:** 8
14.4. Packing group	II	II	II

14.5. Environmental hazards

IMDG Marine Pollutant: Yes (Sodium hypochlorite)

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification D2B E

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Sodium hypochlorite (100.00)
Potassium hydroxide. (1,000.00)

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%):

Potassium hydroxide.
Sodium hypochlorite

Penn RTK Substances (>1%):

Potassium hydroxide.
Sodium hypochlorite

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

Revision Date: 07/12/2022 Supersedes: 03/02/2015 Reason: Review and Update

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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The hazardous materials identification system (HMIS) and national fire protection association ratings have been included by Pharmacal research laboratories INC. In order to provide additional health and hazard information. The ratings recommended are based upon criteria supplied by the developers of these rating systems, together with Pharmacal's interpretation of the available data.

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