1. Product and Company Identification

Product Name	:	**AD - K1**
Usage	:	**Oven, Grill and Fryer Cleaner**
Address	:	KSA -Khobar – NSH Tower 9th floor
Phone Number	:	+966 50 519 6007
E-mail	:	info@maracialsharq.com
Revision date	:	Jan, 2021.D
Distributed by	:	Maraci Alsharq

2. Hazards identification

2.1. Classification

Hazard Classification Product: : This product considered hazardous component by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Health hazards : Skin corrosion/irritation
Serious eye damage/eye irritation

Physical hazards : May be Corrosive to metal

2.2. Label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.
Harmful if swallowed
May be corrosive to metals

Inhalation : Mists, vapors or liquid may cause severe irritation or burns

Ingestion : May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Eye contact : Contact with eyes can cause serious eye .direct contact may cause severe irritation , pain ,burns possibly severe and permanent damage including blindness

Skin contact : Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns.

3. Composition/information on ingredients

Information on hazardous components

Active ingredients	Conc. %	CAS #

Potassium hydroxide	5.0 – 15.0 %	1310-58-3

4. First-aid measures

Inhalation : Move person to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Skin contact : Remove contaminated clothing. Wash the skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact : IMMEDIATELY rinse eyes with plenty water also under the eyelids. Remove any contact lenses, if it easy and possible.
Seek medical assistance. Transport to hospital or medical centre.

Ingestion : Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Advice to doctor : Treat symptomatically.

First Aid Facilities : Emergency body shower and an emergency eye wash station with enough water to flow for at least 15 minutes.

5. Fire and explosion measures

Flammability : This product is not flammable under normal conditions.

Suitable Extinguishing Media : Water sprays (fog) or foam. Dry chemical. Carbon dioxide (CO2).

Hazardous thermal decomposition products : Hazardous decomposition and by products may include carbon oxides (carbon dioxide and carbon monoxide) and gases hazardous to health.

Fire and Explosion : On contact with ordinary metals (steel, galvanized, aluminum) corrosion may occur and generate highly flammable hydrogen gas
Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Standard procedure for chemical fires : As in any fire:
Fight fire with normal precautions from a reasonable distance.
Do not enter fire area without full protective equipment including respiratory protection.
Exercise caution when fighting any chemical fire.
Use water spray or fog for cooling exposed containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental release measures

Personal precautions : Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Methods for cleaning up : For small spills: Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labeled containers or drums for disposal.
For large spills: Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labeled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Environmental precautions : Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

7. Handling and storage

Handling : Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

Storage : Keep container tightly closed in a dry and well-ventilated place. Keep in KEEP OUT OF REACH OF CHILDREN. Keep in properly labeled containers. keep away from Incompatible materials
Incompatible materials: acids, oxiding agents, organic compounds, halogenated compounds, chromium, magnesium, zinc.

8. Exposure controls and personal protection

Exposure Guidelines : ***POTASSIUM HYDROXIDE :***
OSHA PEL: (vacated) Ceiling: 2 mg/m3
NIOSH IDLH: Ceiling: 2 mg/m3
ACGIH: Ceiling: 2 mg/m3

Eye/Face protection : Tight sealing safety goggles. Face protection shield

Hand/Skin Protection : Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory	:	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Other Personal Protective Wear	:	Measures should be taken to prevent materials from being splashed into the eyes or on the skin.
Engineering Controls	:	Ensure adequate ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. Ensure that eyewash stations and safety showers are proximal to the work-station location. Only mix product in plastic containers or buckets.
Hygiene measures	:	When using do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Appearance	:	Clear Liquid
Color	:	transparent
Odor	:	Natural
PH	:	14.0
Relative density (g/cm^3)	:	1.10-1.20
Solubility	:	100% Soluble

10. Stability and reactivity

Chemical Stability	:	Stable at room temperature in closed containers under normal storage and handling conditions.
Condition to Avoid	:	Extremes of temperature and direct sunlight.
Incompatible Materials	:	Acids, oxiding agents, organic compounds, halogenated compounds, chromium, magnesium, zinc.
Hazardous Decomposition Products	:	Thermal decomposition May include carbon monoxide, carbon dioxide (CO2) and other toxic gases or vapors. On contact with ordinary metals (steel , galvanized , aluminum) corrosion may occur and generate highly flammable hydrogen gas
Hazardous Reactions	:	No dangerous reaction known under conditions of normal use. Hazardous Polymerization will not occur.

11. Toxicological information

Acute Toxicity : *Potassium Hydroxide :*
LD50 (Oral): 273 mg/kg (Rat)
LD50 (Dermal): no data available
LC50 (Inhalation): no data available

Information on likely routes of exposure : Eyes, Skin, Ingestion, Inhalation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Acute & Chronic Potential Health Effects : Skin: Contact with skin will result in severe Irritation, Redness, and Itchiness. Corrosive to skin - may cause skin burns.
Eyes: irritation, Redness, watering eyes, itchiness. Causes severe eye damage
Ingestion: Irritation, nausea, vomiting, diarrhea. Acute irritation and burns to the mucous membranes of the mouth, trachea, esophagus and stomach
Inhalation: Irritation, coughing, wheezes. Respiratory irritation and inflammation.

Carcinogenicity : This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Germ Cell Mutagenicity : The limited information located does not suggest that the components of the product are mutagenic.

Reproductive Toxicity : This material has been classified as non-hazardous.

12. Ecological information

Ecotoxicity effects : Not regarded as dangerous for the environment. However, large or frequent spills may have harmful effects on the environment. If released to waterways, alkaline products may change the pH of the waterway and may affect the aquatic life
Aquatic toxicity is unlikely to occur.

Ecotoxicity of Potassium Hydroxide :
Water :
Fish: LC50 96 hrs: 80 mg/L (Gambusia affinis)
Mobility : mobile in soil

Biodegradability : Expected to be readily biodegradable

Bioaccumulation : No bioaccumulation expected.

13. Disposal considerations

Waste Disposal	:	Collect and reclaim or dispose in sealed, corrosive resistance containers such as HDPE containers. Unused product and its container must be disposed as a hazardous waste. Product is highly alkaline .it may be neutralized using weak acid .do not allow this material to drain into sewer and water supplies. Do not contaminate ponds, waterways with chemical and used container.
Legislations	:	Disposal should be in accordance with applicable regional, national and local laws and regulations
Disposal of containers	:	Empty containers should be taken for local recycling, recovery or waste disposal.

14. Regulatory information

TSCA Inventory Status	:	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	:	All ingredients are listed on the DSCL inventory.
California Proposition 65	:	This product does not contain any Proposition 65 chemicals.
SARA 311/312	:	Acute health hazard , Chronic Health Hazard
SARA 313	:	This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

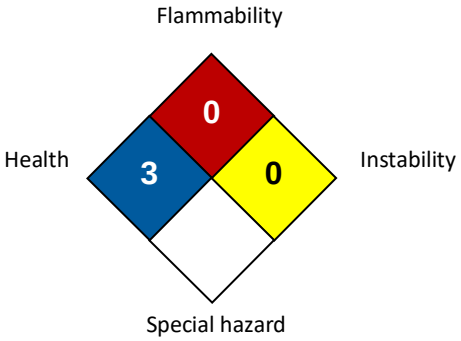
15. Transport information

In accordance with DOT

UN-Number	:	UN3266
Description of the goods	:	Corrosive liquid, basic, inorganic, n.o.s. (contains potassium hydroxide)
Transport hazard class(es)	:	8
Packing group	:	II
Environmental hazards	:	Not listed as a marine pollutant
Hazard label	:	8 - Corrosive

16. Other information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARDS	0
PERSONAL PROTECTION	D

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High,
4 = Extreme, * = Chronic

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

The information of this MSDS is based on the present state of our knowledge and on current EEC and national laws. It is always the responsibility of the user to take all necessary steps in order to fulfill the demand laid down in the local rules and legislation. The information in this MSDS is meant as a description of the safety requirements of our product. It is not to be considered as guarantee of the product's properties.

References: Not available.
Other Special Considerations: Not available.