

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product identifier****Product name** Solo, Solo S**Other means of identification****Product Code** FM9004/FM9005
UN/ID No UN3266
Document FM9004-1 FM9005-1**Recommended use of the chemical and restrictions on use****Recommended use** Dishmachine Detergent**Details of the supplier of the safety data sheet****Distributor**Accurate Companies
731 W. Fairmont Dr.
Tempe, AZ 85282**Emergency telephone number****24 Hour Emergency Phone Number** CHEMTREC: 1-800-424-9300 (NORTH AMERICA)
1-703-527-3887 (INTERNATIONAL)**Company Phone Number** 602-996-9191**2. HAZARDS IDENTIFICATION****Classification****OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 1	Sub-category A
Serious eye damage/eye irritation	Category 1	

Label elements**Emergency Overview****Danger****Hazard Statements**

Causes severe skin burns and eye damage

**Appearance** Transparent**Physical state** Liquid**Odor** Characteristic

Precautionary Statements - Prevention

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- In "**Concentrated**" form, wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

- Immediately call a POISON CENTER or doctor/physician
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)**Other information**

Unknown Acute Toxicity 3.67% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Name	CAS-No	Weight-%	Trade Secret
Sodium hydroxide	1310-73-2	10% - 20%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures for different exposure routes****General advice**

Show this safety data sheet to the doctor in attendance. Immediately call a POISON CENTER or doctor/physician.

Eye contact

Flush with flowing water for 15 minutes & see physician.

Skin contact	Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician, immediately. Wash clothing before re-use.
Inhalation	Remove to fresh air. If breathing has stopped, apply suitable artificial respiration. Get medical help.
Ingestion	DO NOT induce vomiting. Give large amounts of water if victim is conscious. Never give anything by mouth to an unconscious person. Get medical attention immediately. Rinse mouth.
Protection of First-aiders	Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed

Main Symptoms	The most important known symptoms and effects are described in the labelling in section 2 and/or in section 11.
----------------------	-----------------------------------------------------------------------------------------------------------------

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Probable mucosal damage may contraindicate the use of gastric lavage.
---------------------------	-----------------------------------------------------------------------

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use water spray or fog, foam, dry chemical, carbon dioxide, alcohol-resistant foam, if product is involved.

Unsuitable Extinguishing Media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Use water spray to cool adjacent fire exposed containers. Product will not burn but may splatter if temperature exceeds boiling point.

Hazardous Combustion Products If burned, normal combustion products: Sodium Oxides

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

Avoid exposure to fumes or vapors. Protect eyes and skin from contact. Wear self-contained positive pressurized breathing apparatus MSHA/NIOSH Approved or equivalent to maintain TLV.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray.
-----------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Other information	Common Weak Acids suitable for neutralizing caustic alkalis: acetic acid, citric acid, lemon juice, tartaric acid, vinegar.
--------------------------	-----------------------------------------------------------------------------------------------------------------------------

Environmental precautions

Neutralization is normally necessary before waste water is discharged into water treatment plants. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up**Methods for Containment**

Neutralize with dilute acid or sodium bicarbonate. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Neutralise with a weak acid. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep container in cool well-ventilated area. Keep container tightly closed. Store away from incompatible materials. Keep out of the reach of children.

Incompatible products

Strong acids, reactive metals (i.e. aluminum or zinc).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

Review Section 3 & 4 for Exposure Guidelines.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	-	TWA: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

NIOSH IDLH: *Immediately Dangerous to Life or Health*

Appropriate engineering controls**Engineering Measures**

Ensure adequate ventilation and that running water is available for washing eyes and skin

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

In "Concentrated" form, use splash-proof chemical goggles or face shield.

Skin and body protection

Impervious rubber, alkali-proof protective gloves. Impervious rubber boots & apron..

Respiratory protection

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.

Hygiene measures

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and chemical properties****Physical state**

Liquid

Appearance	Transparent	Odor	Characteristic
Color	Red	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	13-14	± 0.5
Melting/freezing point	No information available	
Boiling point/boiling range	100 °C / 212 °F	
Flash Point	No information available	
Evaporation rate	GT 1.00	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No information available	
Lower flammability limit	No information available	
Vapor pressure	17	
Vapor density	No information available	
Specific Gravity	1.20	
Water solubility	Completely Soluble	
Solubility in other solvents	No information available	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity, kinematic	No information available	
Viscosity, dynamic	No information available	
Explosive properties	No information available	
Oxidizing Properties	No information available	

Other information

Softening point	No information available
Molecular Weight	No information available
VOC Content(%)	Negligible
Density VALUE	No information available
Bulk Density VALUE	No information available

10. STABILITY AND REACTIVITY

Chemical stability

Stable.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong acids, reactive metals (i.e. aluminum or zinc).

Hazardous Decomposition Products

If burned, normal combustion products: Carbon dioxide, Carbon monoxide; Nitrogen oxides. Hydrogen gas in contact with some metals.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Harmful if swallowed Causes severe skin burns and eye damage
Inhalation	Corrosive to respiratory system.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.

Skin contact

Causes burns.

Ingestion

Causes gastrointestinal tract burns. Causes severe pain, nausea, vomiting, diarrhea, and shock.

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
Sodium hydroxide 1310-73-2	140 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-

Information on toxicological effects
Symptoms

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Sensitization

No information available.

Mutagenic effects

No information available.

Carcinogenicity

Contains no ingredient listed as a carcinogen.

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Chronic toxicity

No information available. Avoid repeated exposure.

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information
Unknown Acute Toxicity

3.67% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)

1803604 mg/kg

ATEmix (dermal)

7353 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

5.8913% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Sodium hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment
Waste Disposal Methods

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.



This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Sodium hydroxide 1310-73-2	Toxic Corrosive

14. TRANSPORT INFORMATION

DOT	Regulated
UN/ID No	UN3266
Proper shipping name	Corrosive, liquid, basic, inorganic, n.o.s. (Sodium hydroxide)
Hazard class	8
Packing Group	II
Emergency Response Guide Number	154

15. REGULATORY INFORMATION

International Inventories

TSCA	-
DSL/NDSL	-
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-
PICCS	-
AICS	-

Legend:

TSCA - All components of this product are listed or are exempt or excluded from listing on the United States Toxic Substances Control Act Section 8(b) Inventory.

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). 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.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no



Reactive Hazard

Yes

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide 1310-73-2	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product contains substances regulated by state right-to-know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide 1310-73-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<u>NEPA</u>	Health Hazards 3	Flammability 0	Instability 1	Physical and chemical hazards COR
<u>HMIS</u>	Health hazard 3	Flammability 0	Physical Hazards 1	Personal protection X

Prepared By Accurate Companies
731 W. Fairmont Dr.
Tempe, AZ 85282
Issuing date 01-June-2015
Revision Date 20-October-2017
Revision Note 1.1

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet