**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name : **ACTIVATE**

Other Means of Identification : Not applicable

Recommended Use : Machine Dishwashing Detergent

Restrictions on Use : For Industrial and professional use

Company Advanced Chemical Technology, Inc.

4940 Jackson St

Denver, Colorado 80216

Emergency telephone (800) 535-5053

Poison control center (800)-222-1222

Issuing date 01/19/2016

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Skin corrosion : Category 1A

Serious eye damage : Category 1

Corrosive to metals : Category 1

**GHS Label element**

Hazard pictogram :

Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.

Precautionary Statements **: Prevention:**

 Wash skin thoroughly after handling.

 **Response:**

IF IN EYES: Rinse cautiously with water for several minutes.

 Remove contact lenses, if present and easy to do. Continue

 rinsing.IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

 IF ON SKIN (or hair): Remove /Take off immediately all

 contaminated clothing. Rinse skin with water/ shower. IF INHALED:

 Remove victim to fresh air and keep at rest in a position

 comfortable for breathing. Immediately call a POISON CENTER or

 doctor/ physician. Wash contaminated clothing before reuse.

 **Storage:**

 Store locked up.

 **Disposal:**

 Dispose of contents/ container to an approved waste disposal

 plant.

**Other Hazards** : None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture Mixture

**Chemical name CAS-No. Concentration (%)**

Sodium hydroxide 1310-73-2 20-25

Polyacrylate 66019-18-9 1-5

**SECTION 4. FIRST AID MEASURES**

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

 for at least 15 minutes. Remove contact lenses, if present and

 easy to do. Continue rinsing. Get medical attention immediately.

In case skin contact  : Wash off immediately with plenty of water for at least 15

 minutes. Use a mild soap if available. Wash clothes before reuse.

 Thoroughly clean shoes before reuse. Get medical attention

 Immediately.

If Swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give

 anything by mouth to an unconscious person. Get medical

 attention immediately.

If Inhaled : Remove to fresh air. Treat symptomatically. Get medical

 attention if symptoms occur.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific

 personal protective equipment.

Notes to Physician : Treat symptomatically.

Most important symptoms : See section 11 for more detailed information on health effects

and effects, both acute and and symptoms.

delayed

**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

 circumstances and the surrounding environment.

Unsuitable extinguishing media None known

Specific hazards arising during Not flammable or combustible.

fire-fighting.

Hazardous combustion : Decomposition products may include the following materials:

products Carbon oxides

 Nitrogen oxides (NOx)

 Oxides of phosphorus

Special protective equipment : Use personal protective equipment.

for fire-fighters

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be

for Fire-Fighters. disposed of in accordance with local regulations. In the event of

 fire and/or explosion do not breathe fumes.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective : Ensure adequate ventilation. Keep people away from and upwind

Equipment and Emergency of spill/leak. Avoid inhalation, ingestion and contact with skin and

Procedures eyes. When workers are facing concentrations above the

 exposure limit they must use appropriate certified respirators.

 Ensure clean-up is conducted by trained personnel only. Refer to

 protective measures listed in section 7 and 8.

Environmental Precautions : Do not allow contact with soil, surface or ground water.

Methods and materials for : Stop leak if safe to do so. Contain spillage, and then collect with containment and cleaning up non-combustible absorbent material, (e.g. sand, earth,

 diatomaceous earth, vermiculite) and place in container for

 disposal according to local/ national regulations (see section 13).

 Flush away traces with water. For large spills, dike spilled material

 or otherwise contain material to ensure runoff does not reach a

 waterway.

**SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not

 Breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with

 adequate ventilation. Wash hands thoroughly after handling.

 SAFETY REMINDER:

 **\***Never pour product into unlabeled containers.

 **\***Use only for recommended uses. Read label.

 **\***Never take product home. Use only in workplace.

Conditions for Safe Storage : Do not store near acids. Keep out of reach of children. Store in

 suitable labeled containers.

Storage Temperatures : -10 ̊C to 50 ̊C

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

Ingredients CAS-No. Form of Permissable Basis
 exposure concentration

sodium hydroxide 1310-73-2 Ceiling 2mg/m3 ACGIH

 Ceiling 2mg/m3 NIOSH REL

 TWA 2mg/m3 OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations

 below occupational exposure standards.

**Personal protective equipment**

Eye protection : Safety goggles

 Face-sheild

Hand protection : Wear the following personal protective equipment:

 Standard glove type.

 Gloves should be discarded and replaced if there is any indication

 of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective

 gloves, safety goggles and protective clothing.

Respiratory protection : When workers are facing concentrations above the exposure limit

 they must use appropriate certified respirators.

Hygiene Measures : Handle in accordance with good industrial hygiene and safety

 practice. Remove and wash contaminated clothing before re-use.

 Wash face, hands and any exposed skin thoroughly after

 handling. Provide suitable facilities for quick drenching or flushing

 of the eyes and body in case of contact or splash hazard.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Liquid

Color : orange

Odor : odorless

pH : 12.5 – 12.8, 1 %

Flash Point : Not applicable

Odor Threshold : No data available

Melting point/freezing point : No data available

Initial boiling point and : No data available boiling range

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapor pressure : No data available

Relative vapor density : No data available

Specific gravity : 1.25

Relative density : No data available

Water solubility : Complete

Solubility in other solvents : No data available

Partition coefficient: n- : No data available octanol/water

Autoignition temperature : No data available

Thermal decomposition : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

Molecular weight : No data available

VOC : None

**SECTION 10. STABILITY AND REACTIVITY**

Chemical Stability : Stable under normal conditions

Possibility of Hazardous : No dangerous reactions known under conditions of normal use.

Reactions

Conditions to Avoid : None known.

Incompatible materials : Acids

 Metals

 Organic materials

Hazardous Decomposition : Decomposition products may include the following materials:

Products Carbon oxides

 Nitrogen oxides (NOx)

 Oxides of phosphorus

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of : Eye contact, Skin contact

Exposure

**Potential Health Effects**

Eyes : Causes serious eye damage.

Skin : Causes severe skin burns.

Ingestion : Causes digestive tract burns.

Inhalation : May cause nose, throat, and lung irritation.

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

**Experience with human exposure**

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

**Toxicity**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Skin corrosion/irritation : No data available

Serious eye damage/ : No data available

eye irritation

Respiratory or skin : No data available

sensitization

Carcinogenicity : No data available

Reproductive effects : No data available

Germ cell mutagenicity : No data available

Teratogenicity : No data available

STOT –single exposure : No data available

STOT –repeated exposure : No data available

Aspiration toxicity : No data available

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Environmental Effects : Harmful to aquatic life.

**Product**

Toxicity to fish : No data available

Toxicity to daphnia and other : No data available

aquatic invertebrates

Toxicity to algae : No data available

**Ingredients**

Toxicity to daphnia and other : sodium hydroxide

aquatic invertebrates 48 h EC50: 40 mg/l

**Ingredients**

 Polycarboxylates 96h LC50fish >100mg/l

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

**Other adverse effects** No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : The product should not be allowed to enter drains, water courses

 or the soil.Where possible recycling is preferred to disposal or

 incineration. If recycling is not practicable, dispose of in

 compliance with local regulations. Dispose of wastes in an

 approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken

 to an approved waste handling site for recycling or disposal. Do

 not re-use empty containers. Dispose of in accordance with local,

 state, and federal regulations.

RCRA – Resource : D002 (Corrosive)

Conservation and Recovery

Authorization Act Hazardous

Waste

**SECTION 14. TRANSPORT INFORMATION**

This shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

**Land Transport (DOT)**

UN number : 1719

DOT Proper Shipping Name : CAUSTIC ALKALI LIQUIDS, N.O.S. (SODIUM HYDROXIDE)

Class : 8

Packing Group : II

Environmentally hazardous : no

**Sea Transport (IMDG/IMO)**

UN number : 1719

Description of the goods : CAUSTIC ALKALI LIQUIDS, N.O.S. (SODIUM HYDROXIDE)

Class : 8

Packing Group : II

Marine pollutant : no

**SECTION 15. REGULATORY INFORMATION**

**EPCRA – Emergency Planning and Community Right-to-Know**

**CERCLA Reportable Quantity**

Ingredients CAS-No. Component RQ (lbs) Calculated product RQ (lbs)

sodium hydroxide 1310-73-2 1000 4545

**SARA 304 Extremely Hazardous Substance Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards :**  Acute Health Hazard

**SARA 302 :** No chemicals in this material are subject to the reporting

 requirements of SARA Title lll, Section 302.

**SARA 313 :** This material does not contain any chemical components with

 known CAS numbers that exceed the threshold (De Minimus)

 reporting levels established by SARA Title lll, Section 313.

**California Prop 65**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other

reproductive effects.

**The ingredients of this product are reported in the following inventories:**

**United States TSCA Inventory :**

On TSCA Inventory

**Canadian Domestic Substances List (DSL) :**

All components of this product are on the Canadian DSL.

**SECTION 16. OTHER INFORMATION**

**Hazardous Material :**

**Information System (U.S.A)**

 **Health 3**

 **Flammability**  **0**

 **Physical Hazards** **0**

**NFPA:**

 **Flammability**

**3**

**Instability/**

**Reactivity**

**Health**

**0**

**0**

 **Special Hazard**

Issuing date : January 19, 2016

Version : 1.0

Prepared by : Specialty Chemicals & Systems

Notice to reader

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.