

**SECTION1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

## MSDS identification

- Key: 88129
- Name: Carbon Dioxide Activity Standard

Catalog Numbers : 13-620-804

Synonyms:

Company Identification : 39-7 Dongja-dong Yongsan-Gu Seoul Korea

**SECTION2- COMPOSITION, INFORMATION ON INGREDIENTS**

| CAS #     | Chemical Name      | %       | EINECS#   |
|-----------|--------------------|---------|-----------|
| 144-55-8  | Sodium bicarbonate | 1.0     | 205-633-8 |
| 7732-18-5 | Water              | Balance | 231-791-2 |

Hazard Symbols: None Listed.

Risk Phrases: None Listed.

**SECTION3- HAZARD IDENTIFICATION**

## EMERGENCY OVERVIEW

Appearance: clear, light yellow green liquid.

This is expected to be a low hazard for usual industrial handling, may cause irritation.

Target Organs: None.

## POTENTIAL HEALTH EFFECTS.

Eye: May cause eye irritation.

Skin: Low hazard for usual industrial handling.

Ingestion: ingestion of large amounts may cause gastrointestinal irritation.

Low hazard for usual industrial handling.

Inhalation: Low hazard for usual industrial handling.

**SECTION4- FIRST AID MEASURE**

Chronic: No information found.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical aid.

Skin: Get medical aid if irritation develops or persists. Flush skin with plenty of water.

Ingestion: Never give anything by mouth to an unconscious. .Seek medical aid

**SECTION5- FIRE FIGHTING MEASURE**

Chronic: No information found

General information: wear a self-contained breathing apparatus and full protective gear

Extinguishing Media: Use agent most appropriate to solution to extinguish surrounding fire.

Auto ignition Temperature: Not available

Flash point: Not available

Explosion Limits, lower : Not available

Explosion Limits, upper : Not available

**SECTION6- ACCIDENTAL RELEASE MEASURE**

NFPA Rating: (estimated) health:1;Flammability:0;Instability:0

General Information: use proper personal protective equipments as indicated in section 8

Spills/Leaks: Absorb spill with inert material (e.g. sand or earth) then place in suitable container.

**SECTION7- HANDLING AND STORAGE**

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**SECTION8- EXPOSURE CONTROLS,PERSONAL PROTECTION**

Storage: Store in a cool, dry, well-ventilated area from incompatible substances.

Engineering Controls: Good general ventilation should be sufficient to control airborne levels.

**EXPOSURE LIMITS**

| Chemical Name      | ACGIH       | NIOSH       | OSHA - Final PELS |
|--------------------|-------------|-------------|-------------------|
| sodium bicarbonate | none listed | none listed | none listed       |
| water              | none listed | none listed | none listed       |

OSHA Vacated PELS:

Sodium bicarbonate: No OSHA Vacated PELs are listed for this chemical.

Water: No OSHA Vacated PELs are listed for this chemical.

## **PERSONAL PROTECTIVE EQUIPMENT**

Eyes: wear appropriate protective eyeglasses or chemical safety goggles described by OSHA's eye and face protection regulations in 29 CFR 1910,133 or European standard EN166

Skin: wear appropriate gloves to prevent skin exposure

Clothing: wear appropriate protective clothing to prevent skin exposure.

## **SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES**

Respirators: follow the OSHA respirator regulations found in 29 CFR 1910,134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respiratory when necessary.

Physical state: liquid

Colour: clear light yellow green

Odor: chlorine-like

Ph: not available.

Vapor pressure: 14 mm Hg

Vapor Density: 0.7

Evaporation rate: >1.0(Ether=1)

Viscosity: not available.

Boiling point: Decomposes

Freezing/Melting point: 32 deg F

Decomposition Temperature:

Solubility in water: Soluble in water.

Specific Gravity/Density: 1.1

Molecular Formula: NaOHCl

## **SECTION 10-STABILITY AND REACTIVITY**

Molecular weight:75.4492

Chemical stability: stable under normal temperatures and pressures.

Conditions to Avoid: incompatible materials.

In compatible with other materials: sodium bicarbonate is incompatible with carbon+water,2-furaldehyde

Hazardous decomposition products: Chlorine, sodium oxide.

SECTION 11-TOXICOLOGICAL INFORMATION

Hazardous polymerization: Has not been reported.

RTECS#:

.CAS#144-55-8:VZ0950000

.CAS#7732-18-5:ZC0110000

LD50/LC50:

.CAS#144-55-8: Draize test, rabbit, eye:100 mg/30\$ mild: Oral, mouse

:LD50=3360 mg/kg:Oral,rat:LD50=4220 mg/kg.

.CAS#7732-18-5:Oral,rat:LD50=>90 ml/kg.

Carcinogenicity:

**Sodium bicarbonate.**

.not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

**Water:**

.not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

SECTION 12-ECOLOGICAL INFORMATION

No information available.

SECTION 13-DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR PARTS 261.3. additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-series: None listed.

SECTION 14-TRANSPORT INFORMATION

US DOT

.No information available

Canadian TDG

.No information available.

SECTION 15-REGULATORY INFORMATION

US FEDERAL

TSCA

.CAS#144-55-8 is listed on the TSCA inventory.

.CAS#7732-18-5 is listed on the TSCA inventory.

**Health & safety Reporting list**

. none of the chemicals are on the health & safety reporting list.

**Chemical test Rules**

. none of the chemicals in this product are under a chemical test rule.

**Section 12b**

. none of the chemicals are listed under TSCA section 12b.

**TSCA Significant New use rule.**

.none of the chemicals in this material have a SNUR under TSCA.

SARA

**CERCLA Hazardous substances and corresponding RQs**

.none of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

. none of the chemicals in this product have a TPQ.

**Section 313**

. none chemicals are reportable under Section 313.

Clean air Act:

. this material does not contain any hazardous air pollutants'.

. this material does not contain any class 1 Ozone depletes.

. this material does not contain any class 2 Ozone depletes.

Clean Water ACT:

.none of the chemicals in this product are listed as Hazardous Substances under the CWA.

.none of the chemicals in this product are listed as Priority pollutants' under the CWA.

.none of the chemicals in this product are listed as TOXIC pollutants' under the CWA.

OSHA:

.none of the chemicals in this product are considered highly hazardous by OSHA.

STATE:

Sodium bicarbonate is not present on state lists from CA, PA, MN, MA, FL or NJ.

Water is not present on state lists from CA, MN. MA. FL or NJ.

California no significant Risk level: None of the chemicals in this product are listed.

## European/International Regulations

European labeling in Accordance with EC Directives

- . Hazard symbols: not available.
- . Risk Phrases:
- . Safety Phrases:

WGK (water danger/Protection)

- .CAS# 144-55-8:0
- .CAS# 7732-18-5:no information available.

United Kingdom Occupational Exposure limits

United Kingdom Maximum Exposure Limits

Canada

- .CAS# 144-55-8 is listed on Canada's DSL LIST.
- .CAS# 7732-18-5 is listed on Canada's DSL List.
- .this product has a WHMIS classification of not controlled.
- .CAS# 144-5-8 is not listed on Canada's ingredient disclosure list.
- .CAS# 7732-18-5 is not listed on Canada's ingredient disclosure list.

Exposure Limits

## SECTION 16--ADDITIONAL INFORMATION

MSDS Creation date: 9/02/1997, Revision #2 date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.