



# GUJARAT ALKALIES AND CHEMICALS LIMITED

P.O.:DAHEJ, TA-VAGARA, DIST-BHARUCH

## SAFETY BULLETIN

Deptt. Safety & Environment

Issue No. 13

January 2011

### MATERIAL SAFETY DATA SHEET

#### 1 CHEMICAL IDENTITY

Chemical Name: **Sodium Chlorate** Chemical Classification - Inorganic Compound

Synonyms : **Soda chlorate; Chlorax; Chloric acid; sodium salt** Trade Name :

Formula: **NaClO<sub>3</sub>** C.A.S. No. : 7775 - 09 - 9 U.N. No.: **1495**

Regulated Identification : Shipping Name: Sodium Chlorate Hazchem Code :1 S

: Codes/Label : Oxidiser. Class 5

: Hazardous Waste I.D. No. : 8

Hazardous Ingredients : C.A.S. No. Hazardous Ingredients : C.A.S. No.

1 Sodium Chlorate : 7775 - 09 - 9 3

2 4

#### 2 PHYSICAL AND CHEMICALS DATA

Boiling Range / Point °C: No Information Physical State: Solid Appearance: White Crystals

Melting / Freezing Point °C: 248 Vapour Pressure @ 35 °C : NA Odour: Odorless

Vapour/Density (Air=1): Not available Solubility in water at 30°C Others: Soluble in alcohol &

Soluble Glycerol

Specific Gravity(Water=1): 2.49 at -80°C Density : 2.5 pH - Aqueous Solution is Neutral

#### 3 FIRE/EXPLOSION HAZARD DATA :

Flammability: No LEL% : NA Flash Point °C (OC) : N.A.

TDG flammability: 5.1 UEL% : NA Flash Point °C (CC) : N.A.

Autoignition Temperature °C : NA

Explosion Sensitivity to impact : Explodes

Explosion Sensitivity to static electricity : Explodes

Hazardous Combustion products : Emits toxic fumes of Cl<sub>2</sub> and Na<sub>2</sub>O

Hazardous Polymerisation : Will not occur.

Combustible Liquid : Yes Explosive Material : No Corrosive Material : NO

Flammable material : No Oxidizer : Strong Oxidiser Others

Pyrophoric material : No Organic Peroxide : No

#### 4 REACTIVITY DATA

Chemical Stability : Stable under ordinary conditions of use and storage

Incompatibility with other material : Aluminium, strong reducing agents, organic matter and other oxidizer substances.

Reactivity : May react explosively with agricultural materials (e.g. Peat, Powdered Sulphur, Saw Dust, Urotropine, Thiuram) Alkynes + Potassium Osmate, Aluminium + Rubber, Ammonium salts, Grease, Leather.

Hazardous Reaction products : Not available

## 5 HEALTH HAZARD DATA

Routes of entry	: Inhalation, Ingestion, Skin & Eyes.			
Effect of Exposure/sympto	: <b>Inhalation &amp; ingestion:</b> Ingestion of a toxic dose (at least 1/2 oz) leads to severe gastroenteric pain, vomiting and diarrhea. Possible respiratory difficulties including the failure of respiration. <b>Skin &amp; Eyes:</b> Cause severe irritation			
Emergency Treatment	: <b>Inhalation:</b> Remove the victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. <b>Ingestion:</b> Induce vomiting immediately as directed by medical attention. <b>Skin contact:</b> Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes, Get medical attention. Wash clothing before reuse. Thoroughly clean safety shoes before reuse. <b>Eye contact:</b> Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.			
TLV (ACGIH)	: 10 mg/m <sup>3</sup>	TLV : 15 mg/m <sup>3</sup>		
Permissible Exposure Limit	: Not Listed			
LD50 (Oral - Rat)	: 50 - 500 mg/kg			
NFPA Hazard Signal	: Health	Flammability	Reactivity	Special Oxidizer
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## 6 PREVENTIVE MEASURES

Personal Protective	: Wear impervious protective clothing, PVC apron as appropriate to prevent skin contact. Avoid : Provide Rubber hand gloves, dust mask, Goggles & face shield. Maintain eye wash fountain and : Do not use oils, grease or protective creams on the skin.
Handling & Storage precautions	: Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain residues (dust, solids); observe all warning and precautions listed for the product.

## 7 EMERGENCY/FIRST AID MEASURES

FIRE	: Fire Extinguishing Media : Use any means suitable fire extinguisher.
	: Special Procedure : Keep the containers cool by spraying water if exposed to heat or flame.
	: Unusual Hazards : Containers may explode in fire.
EXPOSURE	: First Aid Measure
	<b>Inhalation :</b> Remove the victim at once to fresh air area and provide artificial respiration or oxygen if necessary. Seek medical aid.
	<b>Ingestion :</b> Induce vomiting and follow with gastric lavage, saline cathartics, fluid therapy and oxygen.
	<b>Skin Contact :</b> Immediately flush eyes with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
	<b>Eye contact:</b> Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
	: Antidotes/Dosages : Not listed
SPILLS	: Steps to be taken : Sweep and collect the spillage without making dust and wash the area with water and soap.
	: Waste Disposal Method : Seal all the waste in vapour tight plastic bag for eventual disposal.

## 8 ADDITIONAL INFORMATION / REFERENCES

LCLO = 800 mg/kg (Oral - Rbt). A powerful oxidiser. It can explode on contact with flame or spark (static discharge) & has caused many Industrial explosion. May react explosively with powdered metals, non-metals, sulphides, Cyanides, Cyanoborane Oligomer, Nitrobenzene, Organic matter, Paint + ploythylene, Phosphorous, Sodium Phosphonate. Violent reaction or ignition with alluminium, Ammonium Sulphatee, SB2S3, Aesenic, 1,3-Bis + heat, carbon, charcol. Reacts violently with Nitrobenzene, paper, meal sulphides, dibasic organic acids, organic matter.

## 9 MANUFACTURERS/SUPPLIERS DATA

NAME OF FIRM	: GUJARAT ALKALIES AND CHEMICALS LIMITED	Contact person in : In charge NaClO <sub>3</sub> Control Room Emergency
MAILING ADDRESS	: PO: DAHEJ-392 140	Local Bodies involved : GPCB & DISH
TELEPHONE/FAX NOS.	: (02641) 256 031 (CCR) (02641) 256315-18/256325/35	Standard Packing : Cylinders
TELEGRAPHIC ADDRESS	: --	Trem Card details/Ref :
E-MAIL ADDRESS	: <a href="mailto:general@gacl.co.in">general@gacl.co.in</a>	

## 10 DISCLAIMER

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