PT. SULFINDO ADIUSAHA

MATERIAL SAFETY DATA SHEET

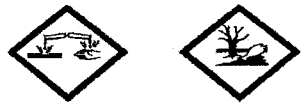
SODIUM HYPOCHLORITE

Disiapkan oleh	Disahkan oleh		
SHE Manager	Collective GM	NO. DOKUMEN	: TBL-QSE-SHE-004
		NO. REVISI	: 1
		TGL. BERLAKU	: 25 Juni 2020
		HALAMAN	: 1/5

1. Identification of the substance/preparation and the company / undertaking :
   Identification of the product
   Product Name : Sodium Hypochlorite
   Other Nama : Chloros, Hyclorite.
   Manufacturer / Supplier identification
   Company : PT. Sulfindo Adiusaha, Serang – Banten, Indonesia
   Contact for information : Telp : ***+6221 525 8300***
   Fax : ***+6221 525 8399***
   Emergency phone no : +62254 575 0035 ext 1205

2. ***Information on ingredients***
   CAS-No : 7681-52-9
   Molar mass : 74.4
   Molecular formi : NaOCl
   Form : Liquid

3. ***Hazard identification :***
   Pictogram



   Signal Word
   DANGER
   Hazard identification :
   Having the character of iritative and can be release gas of chlor.
   Skin : can be irritating if contact is maintained.
   Eye : can be irritating if contact is maintained.
   Swallowed : Burning of mouth, nausea and vomiting, delirium, coma.
   Inhalated : Will produce severe bronchial irritation and pulmonary edema.
   Prolonged contact with skin may cause a burn.
   Swallowed : toxic
   Fire hazards : May decompose, generating irritating chlorine gas.

Precautionary Statement :
Avoid release to the environment
Wear appropriate personal protection to prevent if contact with HYPO with Rubber gloves, goggles, self-contained breathing apparatus, plastic coveralls and boots.
Do not handle until all safety precaution have been reed and understood

4. First aid measured
After eye contact :
Flush with plenty of water for 15 minutes and bring to physician.
After inhalation
Immediately remove victim to place which enough air, giving exhalation of oxygen. Victim immediately bring to doctor.
After skin contact
Wash contaminated area with soap and water.
After swallowing :
Nut and drink water 240-300 ml for thinning, if victim in one's sober senses, immediately bring to doctor.

5. Fire fighting measure :
Nature of material :
non flammable, oxidator
Suitable extinguishing media :
Chemical, CO_2 , foam, or water in flooding quantities.
Special risk :
Effect of heat earn ravelled to become Cl_2 and of O_2.
Special protective equipment for fire fighting :
Use fire exthinguisher type dry powder , CO_2 or spray water. removing tank / save from fire area if possible and do not high risk. barricade fire exthinguiser water don't irrigate to disseminate to all place because the water contain Sodium of Hypochloride. neglectless burning of materials will release poison gas of Cl_2.

6. Accidental release measures :

Small leakage :
Reduced with Natrium Sulfit, iron salt (II) by enhancing $H_2SO_4$2N.

Big leakage :
Immediately isolation spilled area. Don't touch spilled materials and spilled can be permeated.
Neutralizing Agents for Acids and Caustics: Sodium disulfite.
Personal Protective Equipment used:
Use Chlor masker, SCBA, goggle, gloves (PVC, Rubber, Neoprene), plastic coveralls and boots.

7. Handling and storage :

Handling :
Sensitive to light. During handling NaOCl use personal protective equipment such as Chemical Clothes, goggles, full face mask, gloves (PVC, Rubber, Neoprene) Safety shoes, masker to Chlor
Prevention to exposure :
Prevent form of vapour. work in place which ventilating.
Storage :
Tightly dosed protected from light strore bellow 15^{0}C . may decomposed forming gaseous product, especially when stored over long periode. Warehouse building have to hold up corrosive. check
Requirements for storage rooms and containers :
Don't be kept by nearby carbon, keep in cool room, dry and ventilate.

8. Exposure control / personal protection :

Technical exposure :
Adequate ventilation.
Personal protective equipment :
Masker, gloves, goggle, chemical clothes.

9. Physical and chemical properties :

Odorless liquid, corrosive and reaction with water.

Odor	household bleach
Colour	Colorless or slightly yellow watery liquid
pH value	no
Melting temperature	not available

Boiling temperature		decomposition at 40^0C
Ignition temperature		not available
Flash point		not available
Explosion limit	lower	not available
	upper	not available
Relative vapour density		not available
Specific gravity		1.093 for 5% sodium hypochlorite solution
Solubility in water		complete

10. Stability and reactivity
Reactivity :
Ravelled slowly, but mounting quickly if temperature go up until 40°C, releasing poison gas of Cl_2. reacting with acid and reduktor by releasing poison gas. Exsplosive if reacting with Format Acid at temperature 55^0C.
Stability :
no available
Condition to be avoided :
Don't be kept by nearby carbon.
Substances to be avoided :
Flammable materials, reductor, strong acid, nitrogen compound and metals (Cu, Ni, and Co), urea, and sulfuric acid.

11. Toxicological information :
Threshold limit value : no information available.
After eye contact : having the character of iritant or felt hot at eye if consentration 1 ppm pH < 7.2.
After skin contact : generating eczema or alergy/dermatitis do not have the character of accumulatively.
Swallowed LD 50 (mouth) : 8910 mg/kg
Inhalated LC 50 : no available
Local Effect :
Short explanation (acute):
Vapour have the character of iritant to nose, red lane and eye, even can destroy lung.
Chronic:
Generating alergy/dermatitis or eczema.

12. Ecological information :
Environment effect :
Waste of NaOCl don't be thrown to territorial water of public because is poisonous.
Environment degradation:
not available
Bio acumulation :
not available

13. Disposal Consideration
Neutralized in chemical pit with Natrium Sulfit, Natrium Bisulfit or Natrium Thiosulfate (Do not use Sulfate or Bisulfates) by enhancing $H_2SO_4$2N. after reaction of reduction finish, solution neutralized with alkali before thrown until pH 6-9.

14. Transport information
International Rules :
DOT rules or your country rules.
Transport over land :
Tank truck with rubber lining
Sea transportation :
Ship tanker
Air transportation :
no available

15. Regulatory Information :
Ministry of Indonesian Man Regulation No. KEP. 187/MEN/1999 about Controlling of Hazardous Chemical Materials in Working Place, section III about Determined of Hazardous Potential of
Refer to The Government of Republic Indonesia regulation (number 74 year 2001) for Handling of Hazardous Materials.

16. Other Information
Revison 1, June 2020
The information given corresponds to the current state of our knowledge and experience of the product.
This applies to product which conforms to the specification, unless otherswise stated.