

TEKNECAL

SCREEN PRINT SUPPLIES INC.

Material Safety Data Sheet

TRADE NAME: **TEK-404**
REJUVENATOR

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: TEK-404
Product Name: TEK-404 REJUVENATOR
CAS #: Mixture
Synonyms: Screen printing ghost image remover
Chemical Family: Hydrochlorous acid, sodium salt
Application: Screen printing mesh cleaner
Manufactured by: Teknecal Screen Print Supplies Inc.
733 Industrielle Street
Unit 6
Rockland, Ontario K4K 1T2
Prepared by: The Health and Safety Department of Teknecal Screen Print Supplies Inc.
Preparation date: January 9th, 2016
Telephone number: 1-800-547-9318 / 613-4456-7171
24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

This product is a preparation. Health hazard information is based on its components.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	Cas #	LD50s and LC50s Route & Species:
Sodium Hypochlorite, Solution	30-60	7681-52-9	Oral LD50 (Rat) = 8200 mg/kg Dermal LD50 (Rabbit) > 10000 mg/kg
Sodium Hydroxide	10-30	1310-73-2	Oral LD50 (Rabbit): 500 mg/kg

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects

Eye contact: Corrosive to eye tissue and may cause severe damage and blindness.

Skin contact: Corrosive. May cause severe skin irritation, whitening or bleaching of the skin. Prolonged contact may lead to burns and blisters and may aggravate dermatitis.

Inhalation: Corrosive to the respiratory passage. Causes irritation of the mouth, nose and throat. Repeated and/or prolonged exposures may cause productive cough, running nose, bronchopneumonia, pulmonary edema (fluid build-up in lungs) and reduction of pulmonary function. If mixed with acids or warmed to temperatures greater than 40°C, sodium hypochlorite solutions release chlorine gas. This gas can cause severe irritation of the nose and throat. Exposures to high levels of chlorine gas may result in severe lung damage.

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Ingestion: Corrosive. Causes burns to the mouth, throat and stomach, vomiting, nausea, and diarrhea. Coma, shock and death may occur.

4. FIRST AID MEASURES

Eye contact: Wash eyes with water for a minimum of 30 minutes or until no evidence of the chemical remains. Hold eyelids open during flushing. Seek immediate medical attention.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 30 minutes. Get medical attention. Remove contaminated clothing and laundry before reuse.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Seek immediate medical attention.

Note to Physician: Treatment is based on the discretion of the physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

Flash point: None.
Flash point method: Not applicable.
Auto ignition temperature: Not available.
Flammable limits in air (%): Not available.
Extinguishing media: Use extinguishing media appropriate for surrounding fire.

Special exposure hazards: Keep containers cool to prevent rupture and release of material. Closed containers may explode in fire. Spilled material may cause floors and contact surfaces to become slippery.

Hazardous decomposition/combustion materials (under fire conditions): Chlorine. Oxygen. Oxides of sodium.

Special protective equipment: Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, INSTABILITY 1.
HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 3, FLAMMABILITY 0, REACTIVITY 1.

6. ACCIDENTAL RELEASE MEASURES

Personal precautionary measures: Wear appropriate protective equipment.

Environmental precautionary measures: Prevent entry into soil, ditches, sewers, waterways and/or groundwater, dike if needed. Consult local authorities.

Procedure for clean up: Ventilate area.

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Small spills: soak up with absorbent material and scoop into containers.

Large spills: prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water. Spilled material may cause floors and contact surfaces to become slippery.

7. HANDLING AND STORAGE

Handling:

For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment. When diluting, add this product to water in small amounts to avoid splattering. **Never add water to this material.**

Storage:

Store in a cool, dry, well ventilated area, away from heat and ignition sources. Store below 29°C. Do not freeze. Keep away from direct sunlight. Store away from organic chemicals, strong bases, metal powders, carbides, sulfides, and any readily oxidizable material. Storage area should be equipped with corrosion-resistant floors, sumps and should have controlled drainage to a recovery tank.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls:

Local exhaust ventilation is necessary to maintain exposures to within applicable limits. Make up air should always be supplied to balance air exhausted (either generally or locally). Ventilation required when spraying or applying in a confined area. Ventilation should be explosion proof. Eliminate ignition sources.

Respiratory protection:

Wear a NIOSH approved full face piece respirator for acid gases or a self-contained breathing apparatus for air concentration levels up to 5ppm. NIOSH approved supplied air respirator when airborne concentrations exceed exposure limits.

Gloves:

Impervious gloves. Neoprene gloves. Nitrile gloves. Rubber gloves.

Skin protection:

Neoprene coated apron or chemical resistant clothing. Impervious boots.

Eyes:

Chemical safety goggles and/or full face shield to protect eyes and face, if product is handled such that it could be splashed into eyes.

Other personal protection data:

Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients	Exposure Limit ACGIH	Exposure Limit OSHA	Immediately Dangerous to Life or Health IDLH
Sodium Hypochlorite, Solution	0.5 ppm as for Chlorine	Not available	Not available
Sodium Hydroxide	2 mg/m ³ Ceiling	2 mg/m ³ Ceiling	10 mg/m ³

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Vapor pressure:	17.5 mmHg.
Color:	Clear green to yellow.	Vapor density:	Not available.
Odor:	Chlorine.	% Volatile by volume:	Not available.
pH:	11.5 – 13.	Evaporation rate:	Not available.
Specific gravity:	1.21.	Solubility:	Miscible in water.
Boiling point:	Decomposition at 40°C/104°F.	VOCs:	Not available.
Freezing/melting Point:	-25°C / -12°F.	Viscosity:	Not available.
		Molecular weight:	Not available.

10. STABILITY AND REACTIVITY

Chemical stability:	Unstable above 40°C / 104°F.
Hazardous polymerization:	Will not occur.
Conditions to avoid:	High temperatures and exposure to light.
Materials to avoid:	Acids, ammonia, strong oxidizers, reducing agents, metals, glycols.

Hazardous decomposition products:

When heated to decomposition, it emits acrid smoke and irritating fumes. Chlorine. Oxides of sodium. Oxygen.

Additional information:

Hypochlorite's may react with primary amines to form nitrogen trichloride which explodes spontaneously in air. Hypochlorite bleach reacts with urea to form nitrogen trichloride which explodes spontaneously in air. Some metals accelerate the decomposition of Sodium Hypochlorite such as nickel, copper, tin, iron and its alloys, manganese.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion:	Corrosive. Causes burns to the mouth, throat and stomach. Causes vomiting, nausea, and diarrhea. Coma, shock and death may occur.
Skin contact:	Corrosive. May cause severe skin irritation, whitening or bleaching of the skin. Prolonged contact may lead to burns and blisters and may aggravate dermatitis.
Inhalation:	Corrosive to the respiratory passage. Causes irritation of the mouth, nose and throat. Repeated and/or prolonged exposures may cause productive cough, running nose, bronchopneumonia, pulmonary edema (fluid build-up in lungs) and reduction of pulmonary function. If mixed with acids or warmed to temperatures greater than 40 degrees Celsius, Sodium hypochlorite solutions release chlorine gas. This gas can cause severe irritation of the nose and throat. Exposures to high levels of chlorine gas may result in severe lung damage.
Eye contact:	Corrosive to eye tissue and may cause severe damage and blindness.
Additional information:	Aspiration may cause lung damage. Corrosive effects on the skin and eyes may be delayed, and damage may occur without the sensation or onset of pain.
Acute Test of Product	
Acute Oral LD50:	Not available.
Acute Dermal LD50:	Not available.
Acute Inhalation LC50:	Not available.

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Carcinogenicity:

Ingredients	IARC Carcinogens	ACGIH Carcinogens
Sodium Hypochlorite, Solution	Group 3	Not listed
Sodium Hydroxide	Not listed	Not listed

Carcinogenicity comment: No additional information available.

Reproductive Toxicity/

Teratogenicity/Embryotoxicity/

Mutagenicity: Not available.

12. ECOLOGICAL INFORMATION

Ingredients	Ecotoxicity Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity Freshwater Algae Data
Sodium Hypochlorite, Solution	LC50 96 h (Pimephales promelas) 0.06 - 0.11 mg/L flow-through LC50 96 h (Pimephales promelas) 4.5 – 7.6 mg/L static LC50 96 h (Lepomis macrochirus) 0.4 – 0.8 mg/L static LC50 96 h (Lepomis macrochirus) 0.28 – 1 mg/L flow-through LC50 96 h (Oncorhynchus mykiss) 0.05 – 0.771 mg/L flow-through LC50 96 h (Oncorhynchus mykiss) >0.03 - <0.19 mg/L semi-static LC50 96 h (Oncorhynchus mykiss) 0.18 – 0.22 mg/L static	Not available	EC50 24 h (Skeletonema costatum) 0.095 mg/L
Sodium Hydroxide	LC50 (Rainbow Trout) 1149 mg/l LC50 (Chinook Salmon) 152 mg/l	Not available	Not available

Other information: Harmful to aquatic life at low concentrations. Toxicity is primarily associated with pH.

13. DISPOSAL CONSIDERATIONS

Disposal of waste method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

HYPOCHLORITE SOLUTION

DOT (U.S.)

DOT Shipping Name: Hypochlorite Solution.

DOT Hazardous Class: 8.

DOT UN Number: UN1791.

DOT Packing Group: III.

DOT Reportable

Quantity(lbs): Not available.

Marine Pollutant: No.

TDG (Canada)

TDG Proper Shipping Name: Hypochlorite Solution.

Hazard Class: 8.

UN Number: UN1791.

Packing Group: III.

Marine Pollutant: No

15. REGULATORY INFORMATION

U.S. TSCA Inventory status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

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Canadian DSL Inventory status:

All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

WHMIS Hazardous Class: E CORROSIVE MATERIAL



U.S. Regulatory Rules:

Ingredients	CERCLA/SARA Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA Section 313:
Sodium Hypochlorite, Solution	Not listed	Listed	Not listed
Sodium Hydroxide	Not listed	Listed	Not listed

CA Proposition 65: Not listed. **NJ Right-to-Know List:** Listed.
MA Right to Know List: Listed. **PA Right to Know List:** Listed.



16. OTHER INFORMATION

Additional information: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

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END OF MSDS