

SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

CHEMICAL SUPPLIER COMPANY NAME

ProKure Solutions
225 West Deer Valley Road
Phoenix, AZ 85027

EMERGENCY TELEPHONE

Chemtrec 24 hrs: 800-424-9300
Information: 623-780-2296
Fax: 623-516-0414
safety@prokuresolutions.com

Safety Data Sheet Competent Person:

MANUFACTURER'S NAME: ProKure Solutions
ADDRESS: 225 West Deer Valley Road
TELEPHONE NUMBER: 623-780-2296
1-888-824-2918

DATE PREPARED: July 25, 2014

DATE REVIEWED: September 5, 2014

PRODUCT NAMES: **ProKure V**
FORMULA: Mixture
PRODUCT USE: Disinfectant/ Sanitizer/ Tuberculocide/ Virucide/ Fungicide/ Algacide/ Slimicide/
Deodorizer

The product is designed to generate up to a 500 ppm of chlorine dioxide solution when the **ProKure V** pouch is placed in specified amount of water. The product design limits both the amount of gas generated and the rate of release into solution. The product produces chlorine dioxide gas when the contents are adequately wetted.

Section 2: Hazards Identification

1. 500ppm chlorine dioxide (ClO₂) solution in water: *After adding the ProKure V pouch to water, low levels of chlorine dioxide is generated and dissolved in the water. Follow usage instructions for applicable amounts of water to use.*

GHS Hazard Class	Acute Toxicity Dermal -- Category 5	No Symbol
Signal word:	Warning	
Hazard Statement:	May be harmful if in contact with skin	
Precautionary Statements:	Prevention	No Precautionary statement
	Response	Call a Poison Control center or doctor/physician if you feel unwell
	Storage	No Precautionary statement

NFPA RATINGS:

Component	Health (Blue)	Flammability (Red)	Instability (Yellow)	Special (White)
Chlorine Dioxide (ClO₂):	1	0	0	---

2. Used, reacted pouch: *Used pouch can be disposed of in general trash, municipal trash.*

NFPA RATINGS:

Component	Health (Blue)	Flammability (Red)	Instability (Yellow)	Special (White)
Used / reacted pouch	0	0	0	No Water

3. Unreacted chemical mixture inside sealed, tear resistant pouch: *The chemical mixture inside the sealed pouch is not expected to pose a hazard unless the pouch is damaged and the powder mixture is exposed. This section specifically applies to exposure to the white granular powder mixture inside the sealed pouch.*

GHS Hazard Class

Acute Toxicity Oral -- Category 4
 Acute Toxicity Dermal -- Category 3
 Acute Toxicity Inhalation -- Category 3
 Skin Corrosive -- Category 1B
 Eye Corrosive -- Category 1
 Specific target organ toxicity, single exposure Category 2 (Kidney)
 Specific target organ toxicity, repeated exposure Category 2 (Blood)
 Hazardous to the Aquatic Environment—Hazard -- Category 1
 Hazardous to the Aquatic Environment—Long Term Hazard -- Category 1



Signal word:

Danger

Hazard Statement:

Harmful if swallowed
 Toxic in contact with skin
 Toxic if inhaled
 Causes severe skin burns
 Causes serious eye damage
 May form combustible dust concentrations in air.
 May cause damage to organs (Kidney)
 May cause damage to organs (Blood) through prolonged or repeated exposure.
 Very toxic to aquatic life

Precautionary Statements: Prevention

Very toxic to aquatic life with long lasting effects
 Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Avoid breathing dust/fume/gas/mist/vapours/spray
 Use only outdoors or in a well-ventilated area.

Response

Avoid release to the environment
 If Swallowed: Call a Poison Control center/doctor/physician if you feel unwell.
 Rinse mouth. Do NOT induce vomiting.
 IF ON SKIN (or hair): Wash with plenty of water.
 Immediately call a Poison Control center or doctor/physician if you feel unwell.
 Take off immediately all contaminated clothing and wash it before reuse.
 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.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

Storage

Collect spillage
 Store locked up

Disposal

Store in a well-ventilated place. Keep container tightly closed.
 Dispose of waste materials and container by following the waste disposal requirements of your country, state, or local authorities.

HAZARD CLASSIFICATION:

Classified as Hazardous based on IATA, IMDG, and DOT.

FIRE AND EXPLOSION:

Not applicable

POTENTIAL HEALTH EFFECTS:

<0 % of mixture consists of ingredients of unknown acute toxicity

EYE CONTACT:

Causes severe eye damage.

SKIN CONTACT:

Causes severe skin burns.

INHALATION:

Harmful if inhaled. May cause respiratory irritation.

INGESTION:

Harmful if swallowed.

OTHER:

None

CHRONIC EFFECTS OF OVEREXPOSURE:

None

APPEARANCE:

White granular powder

NFPA RATINGS:

Component	Health (Blue)	Flammability (Red)	Instability (Yellow)	Special (White)
Unreacted chemical mixture inside sealed, tear resistant pouch	3	1	0	No Water

Section 3: Composition / Information on Ingredients

PRODUCT COMPOSITION	APPROX %	ACGI H TLV	OSHA PEL	NIOSH REL	CAS NO.	REACH	DANGER SYMBOL	R-RISK PHRASE	DSL	TSCA
TS-1	60.5	-----	-----	-----	TS	-----	-----	-----	Y	Y
Sodium Chlorite	30.5	-----	-----	-----	7758-19-2	231-836-6	-----	-----	Y	Y

Product	500 ppm ClO ₂	-----	-----	-----	10049-04-4	233-162-8	-----	-----	Y	Y
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Some items on this MSDS may be designated as trade secrets (TS). Bona fide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13. The Full List for all R phrases is shown in Section 16.

Section 4: First Aid Measures

INHALATION:	Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Get immediate medical attention.
SKIN CONTACT:	Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing.
EYE CONTACT:	Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
INGESTION:	If swallowed do not induce vomiting, give large quantities of water to drink. Never give anything to an unconscious person. Get immediate medical attention.

Section 5: Fire-fighting Measures

FLASH POINT:	Not applicable
FLAMMABLE LIMITS IN AIR (% by vol):	Not applicable
EXTINGUISHING MEDIA:	CO ₂ , Dry chemical, foam, water fog,
SPECIAL FIREFIGHTING PROCEDURES:	Self-contained breathing apparatus and full protective clothing must be worn.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	If unreacted pouch, approach fire from upwind to avoid hazardous vapors and toxic composition products. Wear self-contained breathing apparatus and protective clothing when fighting fire involving chemicals. If large amounts of products are involved in a fire, it is possible that the application of water will release high concentrations of chlorine dioxide gas into the water.

Section 6: Accidental Release Measures

ACTION TO BE TAKEN IF UNREACTED POUCH IS RELEASED OR SPILLED:	Wear proper protective equipment as specified in Section 8: Exposure Controls/Personal Protection
	Contain spill.
	Recover spill by using absorbent, mop, or towels.
	Place material into a chemical waste container.
	Eliminate all sources of ignition and ventilate area.
	Prevent spills or contaminated rinse water from entering sewers or watercourses.
DISPOSAL METHOD:	Disposal of this container: Reference Section 13 of this MSDS.

Section 7: Handling and Storage

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

- Store upright in a cool, dark, dry place.
- Keep container closed when not in use.
- Use only with adequate ventilation.
- Wear proper protective equipment when handling this material.
- Avoid contact with skin, eyes, or clothing.
- Wash hands and face after handling this material.
- Follow all applicable local regulations for handling and storage.
- Utilize chemical segregation.

INFORMATION ON EMPTIED CONTAINER

Dispose of this container according to local, state, and federal laws in your country.

SPECIFIC USES: Disinfectant/ Sanitizer/ Tuberculocide/ Virucide/ Fungicide/ Algacide/ Slimicide/ Deodorizer

Section 8: Exposure Controls/Personal Protection

VENTILATION:	Always provide good general, mechanical room ventilation where this chemical/material is used.
RESPIRATORY PROTECTION:	No respiratory protection normally required.
PROTECTIVE GLOVES:	Wear chemical impervious gloves at all times while working with this product. Recommended glove types include: Laminate Film, Nitrile, or Tri-polymer. Check with your company's glove supplier to ensure chemical resistance.
EYE PROTECTION:	Safety Glasses, Chemical goggles, face shield
PROTECTIVE CLOTHING:	Wear suitable protective clothing to prevent skin contact.
WORK/HYGIENE PRACTICES:	Avoid breathing vapor. Avoid contact with eyes. Wash hands after handling.

Section 9: Physical and Chemical Properties

	UNREACTED POUCH CRITERIA	PRODUCT CRITERIA
APPEARANCE - COLOR:	White	Yellow green
PHYSICAL STATE:	Powder	Liquid
ODOR:	Slight Chlorine	Chlorine
ODOR THRESHOLD	Not Available for product	0.2—1.0 PPM
PH	Not Available for product	2-3 at 8g/l
FLASH POINT:	Not Available for product	Not Available for product
LOWER EXPLOSIVE LIMIT; UPPER EXPLOSIVE LIMIT	Not Available for product	Not Available for product
FLAMMABILITY (Solid, gas)	Not Available for product	Not Available for product
EXPLOSIVE PROPERTIES	Not Available for product	Not Available for product
OXIDIZING PROPERTIES	Not Available for product	Not Available for product
SPECIFIC GRAVITY (@25 °C):	Not Available for product	~1.0 (Water)
EVAPORATION RATE:	Not Available for product	Not Available for product
% VOLATILE by VOLUME	Not Available for product	Not Available for product
PARTITION COEFFICIENT	Not Available for product	Not Available for product
AUTO IGNITION TEMPERATURE	Not Available for product	Not Available for product
DECOMPOSITION TEMPERATURE	Not Available for product	Not Available for product
BOILING POINT:	Not Available for product	Not Available for product
MELTING POINT:	Not applicable	Not applicable
VAPOR PRESSURE	Not Available for product	Not Available for product
VAPOR DENSITY (AIR = 1)	Not Available for product	2.4
SOLUBILITY IN WATER:	Complete	8 g/l at 15 °C
FREEZING POINT:	Not Available for product	Not Available for product
VISCOSITY	Not Available for product	Not Available for product
VOC CONTENT	Not Available for product	Not Available for product
RINSIBILITY	Not Available for product	Not Available for product
CORROSIVE	Not Available for product	Not Available for product
ΔH (Delta Heat of Combustion)	Not Available for product	Not Available for product

Section 10: Stability and React Section

	UNREACTED POUCH	PRODUCT
STABILITY:	Stable under normal conditions.	Stable under normal conditions.
CONDITIONS TO AVOID:	Temperatures above 347°F (175°C), do not store dry product where exposed to moist conditions and contamination with combustible materials.	Excessive heat or contamination which could cause the product to decompose.
INCOMPATIBILITY (MATERIALS TO AVOID):	Acids, reducing agents, combustible materials, oxidizers (e.g. hypochlorites) or easily oxidizable materials	Combustibles, oxidizable organic materials, hydrogen sulfide, metallic dusts.
HAZARDOUS POLYMERIZATION:	Will not occur	Will not occur

Section 11: Toxicological Information

GHS Required Criteria	Toxicity Criteria	Data	Comments	Chemical Constituent
Acute Toxicity	LD50 Oral Rat	506 mg/kg		Unreacted Pouch Contents
	LD50 Dermal Rabbit	315 mg/kg		Unreacted Pouch Contents
	LC50 Inhalation Rat	0.68 mg/l		Unreacted Pouch Contents
	LD50 Dermal Rabbit	>2000 mg/kg		500 ppm ClO2 Solution
Skin Corrosion/Irritation		Rabbit - Corrosive		Sodium Chlorite
Serious Eye Damage / Eye Irritation		Rabbit - Severe eye irritation	24h	Sodium Chlorite
Respiratory or Skin Sensitization		No information is available		
Germ Cell Mutagenicity		No information is available		
Carcinogenicity		No information is available		
		No information is available	NTP	
		No information is available	OSHA	
Reproductive Toxicity		No information is available		
STOST -- Single Exposure		No information is available		
STOST – Repeated Exposure		No information is available		
Aspiration Hazard		No information is available		
Ames test		No information is available		

STOST = Specific Target Organ Systemic Toxicity

OTHER INFORMATION:

Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Section 12: Ecological Information

		Chemical Component
BIODEGRADATION:	No information is available.	
BIOACCUMULATION:	No information is available.	
ECO TOXICITY:	LC50 - Cyprinodon variegatus (sheepshead minnow) 177mg/l	Unreacted Pouch Contents
	EC50 - Daphnia magna (Water flea) – 105 mg/l	Unreacted Pouch Contents
	LC50 - Cyprinodon variegatus (sheepshead minnow) 150 g/l	500 ppm ClO2 Solution
	EC50 - Daphnia magna (Water flea) – 580 mg/l	500 ppm ClO2 Solution
	EC50 - Daphnia magna (Water flea) – .29 mg/l 48hrs	Sodium chlorite
MOBILITY:	No information is available.	

Section 13: Disposal Considerations

WASTE FROM RESIDUES / UNUSED PRODUCTS / CONTAMINATED PACKAGING:
Dispose of in accordance with federal, state, and local disposal regulations.

RINSATE: Do not dispose of rinse water containing product in a storm water drainage system.

Section 14: Transport Information

ROAD TRANSPORT:

ADR = International Carriage of Dangerous Goods by Road

UN NUMBER:	UN3261
DOT PROPER SHIPPING NAME	Corrosive solid, acidic, organic, N.O.S. (Sodium Chlorite)
DOT / ADR HAZARD CLASS:	Corrosive
DOT / ADR LABELS:	Class 8
PLACARD:	Corrosive, Class 8
DOT / ADR PACKAGING GROUP:	III
Special Provisions	IB8, IP3, T1, TP33
Packaging Exception	154
Packaging Non Bulk	213
Packaging Bulk	240

SEA TRANSPORT: IMDG

PROPER SHIPPING NAME	Corrosive solid, acidic, organic, N.O.S. (Sodium Chlorite)
UN NUMBER SEA	UN3261
CLASS:	8
PACKING GROUP:	III
EmS No.:	F-A, S-B
MARINE POLLUTANT:	Yes
SEA TRANSPORT NOTES:	None

AIR TRANSPORT: IATA/ICAO

UN NUMBER:	UN3261
PROPER SHIPPING NAME	Corrosive solid, acidic, organic, N.O.S. (Sodium Chlorite)
HAZARD CLASS:	8
PACKAGING GROUP:	III

General Information: This product meets the limited quantities exception as follows: DOT/IMDG: Limited quantities up to 5.0 kg.

Section 15: Regulatory Information

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

This product is in compliance with rules, regulations, and/or orders of TSCA.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. The toxic chemicals contained in this product are: None

CALIFORNIA PROPOSITION 65:

This regulation requires a warning for California Proposition 65 chemical(s) under the statute.
The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:

Florida Toxic Substance(s):	None
Massachusetts's hazardous substance(s):	None, Sodium Chlorite
Pennsylvania hazardous substance code(s):	TS-1, Sodium Chlorite
New Jersey	TS-1, Sodium Chlorite
Illinois	None
Michigan:	None

CANADA:

This MSDS/SDS will be non-compliant 3 years after the issue date. This MSDS contains all of the information required by the Controlled Products Regulations (CPR).

WHMIS-INFORMATION:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR), SOR/88-66, current to February 20, 2012. The classes of controlled products listed in the CPR, Section 32, Part IV, have been reviewed and based on Professional Judgment this product has been determined to be WHMIS controlled.

Unreacted Pouch Contents:

Sodium Chlorite:	C - Oxidizing material D1B - Poisonous and infectious material - Immediate and serious effects – Toxic
TS1:	E - Corrosive material

EUROPEAN UNION:

This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Directive 67/548/EEC, Regulation (EC) No 1272/2008 on classification, labeling and packaging (CLP) of substances and mixtures.

WGK: 0 (German Federal Water Management Act) (Water Hazard Class)

Section 16: Other Information

Full Text:

European Community Hazards Identification:

R:	None
S:	None
Danger Symbol(s):	None

Revision Comments:	Initial version August 1, 2014
Revision Number:	0
Information Sources:	RTECS, REACH, OSHA 29CFR 1910.1200

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