

SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS REVISION 5, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

PRODUCT NAME: **ProKure™ D**
FORMULA: Preparation/Mixture
PRODUCT USE: Deodorizer

MANUFACTURER'S NAME: ProKure Solutions
ADDRESS: 225 West Deer Valley Road
Phoenix, AZ 85027
Safety Data Sheet Competent Person: safety@pantheonchemical.com

SUPPLIER'S NAME: ProKure Solutions
ADDRESS: 225 West Deer Valley Road
Phoenix, AZ 85027

TELEPHONE NUMBER: 623-780-2296
TOLL FREE: 1-888-608-7888
FAX: 623-516-0414

EMERGENCY TELEPHONE NUMBER: Chemtrec 24 hrs: 1-800-424-9300
Information: 623-780-2296
Fax: 623-516-0414

DATE PREPARED: October 9, 2015
DATE REVIEWED: December 3, 2015

Section 2: Hazards Identification

GHS Hazard Class: Combustible dust
Acute toxicity, oral (Category 4), H302
Acute toxicity, dermal (Category 3), H311
Skin corrosive (Category 1B), H314
Eye damage (Category 1), H318
Specific Target Organ Toxicity (repeated exposure), (Category 2), H373
Aquatic acute toxicity (Category 1), H400

GHS Label elements, including precautionary statements:

Pictograms:



Signal word: Danger

Hazard Statement(s):
May form combustible dust concentrations in air.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H373 May cause damage to organs (Spleen) through prolonged or repeated exposure.
H400 Very toxic to aquatic life

Precautionary Statement(s):
P102 Keep out of reach of children
P103 Read label before use
P260 Do not breathe dust, mist.

P264 Wash hands, forearms, and exposed areas thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear eye protection, face protection, protective clothing, protective gloves.
P301+P330+P331 If swallowed: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center or doctor.
P321 Specific treatment (see Section 4 on this SDS).
P330 Rinse mouth.
P361 Take off immediately all contaminated clothing. P363
Wash contaminated clothing before reuse.
P391 Collect spillage. P405 - Store locked up.
P501 Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

POTENTIAL HEALTH EFFECTS: Not available

NFPA RATINGS:

COMPONENT	Health (Blue)	Flammability (Red)	Reactivity (Yellow)	Special (White)
ProKure™ D	3	0	1	--

Section 3: Composition / Information on Ingredients

PRODUCT COMPOSITION	APPROX %	CAS NO.	CANADA DSL
Citric acid	66.8	77-92-9	Y
Sodium chlorite	20	7758-19-2	Y
Calcium chloride	13.2	10043-52-4	Y

Toxicity data of the ingredients are demonstrated in Section 11.

Section 4: First Aid Measures

Description of First Aid Measures

INHALATION: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Ventilate the area.

SKIN CONTACT: Immediately flush skin with plenty of water for at least 60 minutes. Remove contaminated clothing. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

INGESTION: Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries After Inhalation: Repeated or prolonged inhalation may damage lungs.
Symptoms/Injuries After Skin Contact: Toxic in contact with skin. Corrosive. Causes burns.
Symptoms/Injuries After Eye Contact: Causes serious eye damage. Causes permanent damage to the cornea, iris, or conjunctiva
Symptoms/Injuries After Ingestion: Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic Symptoms: Causes damage to organs (Spleen) through prolonged or repeated exposure.

Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

Section 5: Fire-fighting Measures

Suitable extinguishing media

Dry chemical, carbon dioxide (CO₂), water spray, fog (flooding amounts)

Unsuitable extinguishing media:

Do not use a heavy water stream. Heavy stream of water may spread fire

Special hazards arising from the substance or mixture

Not flammable but will support combustion. Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive

Protective actions fire-fighters

Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Do not allow run-off from firefighting to enter drains or water sources. Do not breathe fumes from fires or vapors from decomposition. Closed containers exposed to heat may explode. Do not enter fire area without proper protective equipment, including respiratory protection.

Further information

None.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Do not get in eyes, on skin, or on clothing. Do not breathe dust or fumes. Keep away from heat, sparks, open flames, hot surfaces – No smoking. Eliminate every possible source of ignition. Evacuate danger area.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and materials for containment and cleaning up

As an immediate precautionary measure, isolate spill or leak area in all directions. Contain and collect as any solid. Clean up spills immediately and dispose of waste safely. Take up with inert, damp, non-combustible material using clean non-sparking tools and place into loosely covered plastic containers for later disposal. Contact competent authorities after a spill.

Reference to other Sections

For personal protection reference section 8. For disposal reference section 13.

Section 7: Handling and Storage

Precautions for safe handling

Do not handle until all safety precautions have been read and understood. Do not breathe dust. Keep away from heat, sparks, open flames, hot surfaces. – No smoking. Do not allow contact with incompatible materials (see section 10). Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Container remains hazardous when empty. Continue to observe all precautions. Ensure all national/local regulations are observed. Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from direct sunlight, extremely high or low temperatures, and incompatible materials. Store locked up. Strong acids. Strong bases. Strong oxidizers. Combustible materials. May react with moisture. Flammable materials. Organic compounds. Wood. Oils and lubricants.

Specific uses

Deodorizer

Section 8: Exposure Controls/Personal Protection

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Ontario, for Calcium chloride:

OEL TWA (mg/m³): 5mg/m³

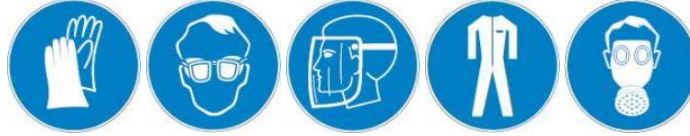
Exposure Controls

Appropriate Engineering Controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Proper grounding procedures to avoid static electricity should be followed. Ensure all national/local regulations are observed. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Personal Protective Equipment:

Gloves. Protective goggles. Face shield. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing:

Chemically resistant materials and fabrics.

Hand Protection:

Wear chemically resistant protective gloves.

Eye Protection:

Chemical safety goggles and face shield.

Skin and Body Protection:

Wear suitable protective clothing.

Respiratory Protection:

If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

Consumer Exposure Controls:

Do not eat, drink or smoke during use

Other Information:

When using, do not eat, drink or smoke.

Section 9: Physical and Chemical Properties

APPEARANCE – COLOR:	White powder
PHYSICAL STATE:	Solid
ODOR:	Chlorine
ODOR THRESHOLD:	Not available
pH:	Not available
MELTING POINT/FREEZING POINT:	Not available
INITIAL BOILING POINT AND BOILING RANGE:	Not available
FLASH POINT:	Not available
EVAPORATION RATE:	Not available
FLAMMABILITY (Solid, gas):	Not available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	Not available
VAPOR PRESSURE:	Not available
VAPOR DENSITY (AIR = 1):	Not available
RELATIVE DENSITY (@25 °C):	Not available
SOLUBILITY (IES):	Soluble in water
OXIDIZING PROPERTIES:	Not available
PARTITION COEFFICIENT: n-octanol/water:	Not available
AUTO IGNITION TEMPERATURE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
VISCOSITY:	Not available
EXPLOSIVE PROPERTY:	Heating may cause a fire or explosion
EXPLOSION DATA:	Static discharge could act as an ignition source

Section 10: Stability and Reactivity

REACTIVITY:

Acidic salts, such as SODIUM BISULFATE, are generally soluble in water. The resulting solutions contain moderate concentrations of hydrogen ions and have pH's of less than 7.0. They react as acids to neutralize bases. May catalyze organic reactions. Increased risk of explosion if mixed with ethanol. If compressed and mixed with calcium hypochlorite, sodium hydrogen sulfate, starch, and sodium carbonate, materials will incandescence and explode. SODIUM CHLORITE is self-reactive. The trihydrate crystals of sodium chlorite explode on percussion. Sodium chlorite reacts with acids to form spontaneously explosive chlorine dioxide gas (ClO₂). If heated above 175 °C, the reaction yields enough heat to become self-sustaining. Ammonia with chlorites produces ammonium chlorite, which is a shock-sensitive compound. Finely divided metallic or organic substances, if mixed with chlorites, are highly flammable and may be ignited on friction. A mixture of organic matter and sodium chlorite can be extremely sensitive to heat, impact, or friction. Sodium chlorite reacts very violently with organic materials containing divalent sulfur or with free sulfur (may ignite).

CHEMICAL STABILITY: CONDITIONS TO AVOID:

Stable under recommended handling and storage conditions (see section 7). Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Overheating. Open flame.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong acids. Strong bases. Strong oxidizers. Combustible materials. May react with moisture. Flammable materials. Organic compounds. Wood. Oils and lubricants.

HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition generates: Corrosive vapors. Chlorine. Sodium oxides. Sulfur compounds. Carbon oxides (CO, CO₂).

HAZARDOUS POLYMERIZATION:

Will not occur

Section 11: Toxicological Information

There is no toxicological information available for the product or mixture.

GHS Required Criteria	Toxicity Criteria	Data	Comments	Chemical Constituent
Acute Toxicity	ATE, oral ATE, dermal LD50 Oral Rat LD50 Dermal Rabbit LC50 Inhalation Rat LD50 Oral Rat LD50 Dermal Rat LD50 Oral Rat LD50 Dermal Rat LD50 Dermal Rabbit	825 mg/kg 536 mg/kg 165m mg/kg 107.2 mg/kg 230 mg/m ³ (4hr) 5,400 mg/kg >2,000 mg/kg 2301 mg/kg 2630 mg/kg >5,000 mg/kg		Product Product Sodium chlorite Sodium chlorite Sodium chlorite Citric acid Citric acid Calcium chloride Calcium chloride Calcium chloride
Skin Corrosion/Irritation			Cause severe skin burn and eye damage	Product
Serious Eye Damage / Eye Irritation			Cause serious eye damage	Product
Respiratory or Skin Sensitization		Not classified		Product
Germ Cell Mutagenicity		Not classified		Product
Carcinogenicity		Not classified		Product
STOST -- Single Exposure		Not classified		Product
STOST -- Repeated Exposure			May cause damage to organs through prolonged or repeated exposure.	Product
Aspiration Hazard		Not classified		Product

STOST = Specific Target Organ Systemic Toxicity

OTHER INFORMATION:

Symptoms/Injuries After Inhalation:

Repeated or prolonged inhalation may damage lungs.

Symptoms/Injuries After Skin Contact:

Toxic in contact with skin. Corrosive. Causes burns.

Symptoms/Injuries After Eye Contact:

Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Chronic Symptoms: Causes damage to organs (Spleen) through prolonged or repeated exposure.

Section 12: Ecological Information

	Environmental Impacts	Chemical Constituents
Toxicity	LC50 Fish 1: 100-500mg/L (96hr, Brachydanio rerio [static]) EC50 Daphnia1: 0.026mg/L (48hr, Daphnia magna) LC50 Fish 2: >100mg/L (96hr, Lepomis macrochirus [static]) EC50 Daphnia2: 0.25-0.33mg/L (48hr, Daphnia magna [Flow through]) LC50 Fish1: 1516 mg/L (96hr, Lepomis macrochirus [static]) LC50 Fish1: 10650 mg/l (96 h, Lepomis macrochirus [static]) EC50 Daphnia1: 2400 mg/l (48 h, Daphnia magna)	Sodium chlorite Sodium chlorite Sodium chlorite Sodium chlorite Citric acid Calcium chloride Calcium chloride Citric acid Calcium chloride Citric acid
Bioaccumulative potential	-1.72 (at 20 °C) BCF Fish 1: no bioaccumulation	
Persistence and degradability:	Readily biodegradable in water.	Citric acid
Mobility in soil:	No information is available.	
PBT and vPvB assessment:	No information is available.	
Other adverse effects:	Avoid release to the environment	Product

Section 13: Disposal Considerations

Waste from residues/unused products

This material is hazardous to the aquatic environment. Keep out of sewers and waterways. Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Contaminated packaging

Contaminated packaging material should be disposed of as stated above for residues and unused product.

Section 14: Transport Information

In accordance with ICAO/IATA/DOT/TDG/IMDG

UN Number: UN3262

Proper shipping name (DOT/TDG/IATA/IMDG): CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Contains Sodium Chlorite), 8, II, Marine Pollutant

Transport Document Description (DOT/TDG): UN3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM CHLORITE), 8, II, Marine Pollutant

Transport Document Description (Adr)(IMDG/IATA): UN3262 CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM CHLORITE), 8, II, Marine Pollutant, (E)

Transport Hazard Class(es): 8-Class8- Corrosive material 49 CFR 173.136

Hazard Label (DOT):



DOT Symbols: G- Identifies PSN requiring a technical name

Packing Group (DOT): II (medium danger)

DOT Special Provisions (49 CFR 172.102): IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle.

IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner. T3 - 2.65 178.274(d)(2) Normal..... 178.275(d)(2)TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 Cfr 173.xxx): 154
DOT Packaging Non Bulk (49 Cfr 173.xxx): 212
DOT Packaging Bulk (49 Cfr 173.xxx): 240

TDG Primary Hazard Class(es): 8-Class8- Corrosives
Hazard Label (TDG):



Packing Group (TDG):
TDG Special provisions:

II (medium danger)
 16 - 1) The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(i)(A) of Part 3, Documentation. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4, Dangerous Goods Safety Marks. 2) subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical: a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S.; b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.; c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S.; d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.; or e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. An example in Canada is the "Food and Drugs Act".

Explosive Limit And Limited Quantity Index: 1
Marine Pollutant: P
Passenger Carrying Road Vehicle Or Passenger: 15
Carrying Railway Vehicle index
Class (IMDG): 8
Danger label (IMDG): 8



Packing Group (IMDG): II
Class (IATA): 8
Hazard Label (IATA): 8



Packing Group (IATA): II – medium danger
Marine Pollutant: P

Additional information:
 Emergency Response Guide (ERG) Number: 154

Transport by sea

Dot Vessel Stowage Location: B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and
 (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
 52 - Stow “separated from” acids

Dot Vessel Stowage Other:
Limited Quantities (IMDG): 1 kg
Special Provisions (IMDG): 274
Excepted Quantities (IMDG): E2
IBC Packing Instructions (IMDG): IBC08
IBC Special Provisions (IMDG): B2, B4
Packing Instructions (IMDG): P002
Tank Instructions (IMDG): T3
Tank Special Provisions (IMDG): TP33
Stowage Category (IMDG): B
EMS-NO. (1): F-A
EMS-NO. (2): S-B
MFAG-NO: 154
Marine Pollutant: P

Air Transport

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27): 15kg
DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75): 50kg
CAO Packing Instructions (IATA): 863
CAO Max Net Quantity (IATA): 50kg
PCA Packing Instructions (IATA): 859
PCA Limited Quantities (IATA): Y844
PCA Limited Quantity Max Net Quantity (IATA): 5kg
PCA Max Net Quantity (IATA): 1kg
PCA Excepted Quantities (IATA): E2
CAO Max Net Quantity (IATA): 50kg
CAO Packing Instructions (IATA): 863
Special Provision (IATA): A3
Erg Code (IATA): 8L
Instruction "cargo" (ICAO): 864
Instruction "cargo" - Limited Quantities (ICAO): 100kg

Section 15: Regulatory Information

TOXIC SUBSTANCES CONTROL ACT (TSCA) STATUS:

All components are listed on TSCA.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) Section 311-312 Hazard Class

Delayed (chronic) health hazard	Product
Immediate (acute) health hazard	Product

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

Massachusetts’s hazardous substance(s):	Sodium chlorite,
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Pennsylvania hazardous substance code(s):
New Jersey

Sodium chlorite
Sodium chlorite

CANADA:

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

WHMIS-INFORMATION:

WHMIS Classification for

Product: Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Class E - Corrosive Material

Sodium chlorite: Class C - Oxidizing Material
Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Class E - Corrosive Material

Citric acid: Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Calcium chloride: Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Section 16: Other Information

Revision Number: 2.0
Revision explanation: Product Use updated
Information Sources: RTECS, ECHA, REACH, OSHA 29CFR 1910.1200

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