

AP FORMULATORS
1015 GEORGIA ST
SOUTH HOUSTON, TX 77587
PHONE # (713) 946-1600

Safety Data Sheet
Revision date: 4/25/19

This SDS complies with 29 CFR 1910.1200 and appendix D (The Hazard Communication Standard- GHS)

SECTION 1: IDENTIFICATION:

PRODUCT NAME: DeFunk™
PRODUCT TYPE: Deodorizing delivery system for the generation of chlorine dioxide
CHEMICAL NAME: Tablet composition containing Sodium Chlorite and additives

SUPPLIER:
AP FORMULATORS
1015 GEORGIA ST
SOUTH HOUSTON, TX 77571

EMERGENCY 24/7 CONTACT
CHEMTREC PHONE 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION:

Emergency Overview

GHS Classification:

Reproductive toxicity
Respiratory sensitizer
Target organ toxicity
Oxidizing solids (Category 2)
Acute Toxicity- Oral (Category 3)
Acute Toxicity- Dermal (Category 2)
Acute Toxicity- (inhalation: dust, mist) (Category 2)
Corrosion- Causes severe skin burns and eye damage (Category 1B)
Eye damage- Serious eye damage/eye irritation (Category 1)
Aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictograms



GHS Signal Word **Danger**

GHS Hazard statement(s): Contact with water releases flammable gas.
May intensify fire: oxidizer.
Harmful if swallowed.
Toxic in contact with skin or if inhaled.
Causes skin irritation and serious eye damage.
May damage fertility or the unborn child.
May cause damage to organs (Oral, blood and Hematopoietic system)
Toxic to aquatic life.

Precautionary statement(s)- PREVENTION:

Obtain special instructions before use.
Do not Handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames, hot surfaces, no smoking
Keep/Store away from clothing/ combustible materials.
Handle and Store contents under inert gas.
Do not allow contact with water/ protect from moisture.
Wear protective gloves/eye protection and face protection.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray.

Precautionary statement(s)- RESPONSE:

In case of fire: use water, sand to extinguish.

IF SWALLOWED: Rinse mouth. Call a poison center/doctor if you feel unwell..

IF ON SKIN (or hair) : Remove/take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical attention/advice. Call a poison center/doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

If exposed or concerned: Call a poison center/doctor seek medical advice.

Collect spillage. Store in dry place. Store in a closed container. Store locked up.

Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification: Not available.

Unknown Acute Toxicity: Not available.

Potential Health effects:

Inhalation: May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin: May be fatal if absorbed through skin. Causes skin burns.

Eyes: Causes eye burns

Ingestion: Toxic if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS:

<u>Ingredient</u>	<u>CAS #:</u>	<u>Percent (%)</u>	<u>EC-No</u>
Sodium Chlorite	7758-19-2	8-24%	231-836-6
Sodium Bisulfate Monohydrate	7681-38-1	12-35%	231-655-7

*A range of concentration as prescribed by the Controlled Products Regulations has been used where necessary, due to varying composition. The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

SECTION 4: FIRST AID MEASURES:

General: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

If inhaled: Using proper respiratory protection, immediately move the exposed person to fresh air. Keep at rest and in a position comfortable for breathing. Seek medical attention immediately. If not breathing, give artificial respiration.

In case of skin contact: Take off contaminated clothing and shoes immediately. Flush skin with soap and plenty of water. Immediately call a POISON CENTER or doctor/physician.

In case of eye contact: Immediately rinse with water for at least 15 minutes while holding the eyelids wide open. Immediately call a POISON CENTER or doctor/physician. Continue rinsing eyes during transport to hospital.

If swallowed: Do NOT induce vomiting. Seek medical attention immediately.

Most Important Symptoms/ Effects (Acute and Delayed)

General: Causes severe skin burns and eye damage

Inhalation (Breathing): Fatal if inhaled.

Skin: Fatal in contact with skin.

Eye: Causes serious eye damage.

Ingestion (Swallowing): Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

Indication of any immediate medical attention and special treatment needed:

If you feel unwell, seek medical advice (show label where possible).

SECTION 5: FIREFIGHTING MEASURES:

Extinguishing media:

Suitable extinguishing media: Use extinguishing agents appropriate for surrounding fire.

Unsuitable extinguishing media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising from the substance or mixture:

Fire Hazard: Not flammable, may intensify fire: oxidizer.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Chlorine dioxide gas evaporated from solutions may explode at concentrations of 10% by volume. Don't allow chlorine dioxide gas to accumulate with a confined space.

Reactivity: Thermal decomposition generates: corrosive vapors.

Advice for Firefighters:

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present. Open/vent containers. Do not allow solutions to evaporate to dryness. Vent to atmosphere.

Firefighting Instructions: Keep upwind. Use water spray or fog for cooling exposed containers.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Notify appropriate authorities if liquid enters sewers or waterways.

Hazardous combustion Products: Corrosive vapors. Acrid smoke and irritating fumes.

Other information: Do not allow run-off from fire fighting to enter drains or water sources.

Reference to Other Sections: Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES:

Personal precautions, Protective equipment and Emergency procedures

General Measures: Avoid all unnecessary exposure. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Ensure adequate ventilation. No smoking.

For Non-Emergency Personnel

Protective equipment: Use appropriate personal protection equipment (PPE), safety glasses, gloves, dust mask.

Emergency procedures: Evacuate unnecessary personnel. Keep upwind.

For Emergency Personnel

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area. Eliminate ignition sources.

Environmental Precautions

If spill could potentially enter any waterway, including intermittent dry creeks, contact the U.S. COAST GUARD NATIONAL RESPONSE CENTER at 800-424-8802. In case of accident or road spill notify CHEMTREC at 800-424-9300 (in USA) or (international code) + 1-703-527-3887.

Methods and materials for containment and cleaning up

Methods for cleaning up: Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. . Clear up spills immediately and dispose of waste safely. Practice good housekeeping. Dilute chlorine dioxide solutions (100-200ppm) do not need to be pH neutralized. Flush residual material, down drain with an excess of water, in accordance with local regulations.

Reference to other sections: See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE:

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated location, away from incompatible /flammable materials and direct sunlight. Keep container tightly closed when unused.

Incompatible Materials: Store away from flammable materials. Storage on wooden floors and pallets is not recommended.

Specific End Uses

Use product only as directed by label. Keep away from children/animals. Avoid contact with skin/eyes. Avoid breathing any vapors/fumes.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION:

Exposure controls

Appropriate Engineering controls: Use approved air purifying respirators/canister/Cartridge facial respirators rated for chlorine/acid vapors specified for chlorine dioxide when fogging/spraying. Open air/ good ventilation is normally adequate for safe use of product.

Personal Protective Equipment: Avoid all unnecessary exposure. Wear respiratory protection if required. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust. Protective goggles. Gloves. Protective clothing.

Materials for protective clothing: Wear suitable protective clothing, Rubber/neoprene/chemically impervious.

Hand protection: Impermeable protective gloves. Nitrile rubber, neoprene.

Eye protection: A full face shield is recommended. Chemical goggles.

Skin and body protection: Wear suitable protective clothing. Chemical resistant suit.

Respiratory protection: Use a NIOSH approved respirator or self contained breathing apparatus whenever exposure may exceed established Occupations Exposure Limits. Where risk assessment shows air purifying respirators are appropriate use a full face particle respirator type N100.

Environmental Exposure Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Consumer Exposure controls: Do not eat, drink or smoke during use.

Supplemental safety and Health: Open and vent any large containers. Thoroughly rinse all protective gear and handling equipment with water prior to reuse/storage. Product may Bleach clothing and fabric materials such as draperies and carpets. Don't allow chlorine dioxide gas to accumulate within a confined space.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES:

Physical state: tablet form

Appearance: White

Odor: Chlorine (like) odor, slight

pH value: 1.45 approx, 40g/l water

Melting point: Not available

Stability: 1 year

Solubility: reacts with water to produce yellow liquid, dissolves within 5 mins.

SECTION 10: STABILITY AND REACTIVITY:

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: Direct sunlight, moisture, extremely high or low temperatures, open flames, sources of ignition and incompatible materials.

Incompatible materials: Bleach, metals, strong acids, alkalis, reducing agents, combustible materials (Phosphorous, sulfur), catalytic agent, explosive-reaction chemicals (carbon monoxide, mercury, hydrogen, butadiene, ethane, methane, propane).

Hazardous decomposition products: Upon exposure to water vapor, chlorine dioxide gas is released.

SECTION 11: TOXICOLOGICAL INFORMATION:

Acute oral ingested: No toxicity

Accumulating toxicity: Low toxicity

Medulla incarnadining cell particulate test by rat: does not cause micro kernal

Health Hazard data:

Standard Draize test: Administration into the eye/Rabbit/ 100mg/ severity: Mild

Acute toxicity data:

LD50 lethal dose, 50 percent kill/ oral/ Rat/ 292mg/kg/Toxic effects: Behavioral, somnolence (general depressed activity). Lungs, torax or respiration- respiratory simulation. Skin and appendages- Hair.

LCLo- Lowest published lethal concentration/inhalation/ Rat/ 260ppm/2H/ Toxic effects: Sense organs and special senses (olfaction)- effect, not otherwise specified. Sense organs and special senses (eye)- effect, not otherwise specified.

LD50- Lethal dose, 50 percent kill/Rat/ 140mg/kg/ Toxic effects: Details of toxic effects not reported other than lethal dose value.

Other multiple dose toxicity data:

LDLo- Lowest published toxic dose/ oral/ rat/ 365mg/kg/1Y-C/ Toxic effects: Blood- pigmented or nucleated red blood cells. Blood other changes nutritional and gross metabolic- weight loss or decreased weight gain.

TCLo- Lowest published toxic concentration/inhalation/rat/ 10ppm/4H/14-D-1/ Toxic effects: Sense organs and special senses (olfaction)- effect, not otherwise specified Kidney, ureter, bladder- other changes related to chronic data- death.

Reproductive toxicity:

TDLo- Lowest published toxic dose/ oral/rat/ 960mg/kg/sex/duration: female 76 days (pre-mating), female 1-20 days (after conception)/toxic effects: Reproductive- fertility- pre-implantation mortality (e.g. reduction in the number of implants per female: total number of implants per corpora lutea). Reproductive- Fertility- litter size (e.g. number of fetuses per litter; measured before birth).

TDLo-lowest published toxic dose/Oral/rat/ 570mg/kg/ sex/duration: female 14 days (pre-mating)-21 days post-birth. Toxic effects: Reproductive- effects on newborn-behavioral Reproductive-effects on newborn-physical. inhalation rat

TDLo-lowest published toxic dose/Oral/rat/ 1130mg/kg/ sex/duration: male 8 weeks (pre-mating)-female 2 weeks (pre-mating)- 3 weeks post birth. Toxic effects: Reproductive- effects on newborn-biochemical and metabolic.

TDLo-lowest published toxic dose/Oral/mouse/ 840mg/kg/ sex/duration: female 1-21 days after conception, lactating female 21 days post birth Toxic effects: Reproductive- effects on newborn-growth statistics (e.g. percent weight gain.)

Mutation data:

Mutation in microorganisms/ Bacteria (Salmonella typhimurium)/ 400ug/plate

DNA inhibition/oral/rat/ 84 mg/kg/12W (continuous)

Micronucleus test/intraperitoneal/mouse/3200 ug/kg

SECTION 12: ECOLOGICAL INFORMATION:

Toxicity

Ecology-General: Not regarded as dangerous for the environment. Do not release into surface waters.

Persistence and Degradability Not established

Bioaccumulative Potential: not applicable

Mobility in soil Not available

Other adverse effects Avoid release to the environment

SECTION 13: DISPOSAL INFORMATION:

Waste Treatment methods: Dispose of waste material in accordance with all local, regional, national, and international regulations. Large volumes should be taken to an authorized chemical disposal site/landfill in accordance with local and national regulations. Used product may have different hazards or properties than the original product.

Sewage Disposal Recommendations: Do not dispose of waste into sewer. Do not empty into drains; dispose of this material and its container in a safe way. Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION:

U.S. DOT 49 CFR 172.101: UN2813, Water reactive solid, N.O.S. (contains Sodium Chlorite & Sodium Bisulfate), 4.3, PGII

For domestic highway or rail transportation, this product may qualify for DOT Small Quantity Exception: See regulations for full details. Package must meet requirements and be marked with the following statement.

“This package conforms to 49 CFR 173.4 for domestic highway or rail transport only.”

SECTION 15: REGULATORY INFORMATION:

US Federal Regulations

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

TSCA: Sodium Chlorite (7758-19-2) Listed on the US TSCA (Toxic Substances Control Act) inventory

Canadian Regulations: Sodium Chlorite (7758-19-2) **WHMIS Classification:**

Product Name: DeFunk™ (all sizes of tablets)

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Class C- Oxidizing material

Class D Division 1 Subdivision A- Very toxic material causing immediate and serious toxic effects.

Class E- Corrosive Material

SECTION 16: OTHER INFORMATION:

Revision date: 4/25/19

Health- 3 Serious hazard- major injury likely unless prompt action is taken and medical treatment is given

Flammability- 0 minimal hazard

Physical- 0 minimal hazard

Personal protection: F

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