SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Identification: Occidental Chemical Corporation
14555 Dallas Parkway, Suite 400, Dallas, Texas 75254-4300

24 Hour Emergency Telephone Number: 1-800-733-3665 (USA); CANUTEC (Canada): 1-613-996-6666; CHEMTREC (within USA and Canada): 1-800-424-9300; CHEMTREC (outside USA and Canada): +1 703-527-3887; CHEMTREC Contract No: CCN16186

To Request an SDS: MSDS@oxy.com or 1-972-404-3245
Customer Service: 1-800-752-5151 or 1-972-404-3700
Product Identifier: AKTA KLOR 7.5
Synonyms: 7.5% Sodium Chlorite Solution

Product Use: AKTA KLOR 7.5 is a registered antimicrobial pesticide (EPA Registration Number: 21164-9). It has numerous uses in potable water, food plant process water, poultry process water, CIP disinfection, oilfield water, white water paper mill systems, and industrial cooling water. Refer to the product label's Directions For Use to find all approved uses and applications.

Restrictions on Use (United States): This is a pesticide product; do not use in a pesticide application that is not approved by the EPA. EPA Reg. No. 21164-9 (Akta Klor 7.5).

Other Global Restrictions on Use: Not registered as a pesticide in Canada. Do not sell for pesticide uses in Canada. Other restrictions on use based on local, regional, or national regulations may exist and must be determined on a case-by-case basis.

Chemical Family: Sodium Chlorite Solution
SECTION 2. HAZARDS IDENTIFICATION

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

EMERGENCY OVERVIEW:

Color: Pale, yellow
Appearance: Slightly cloudy
Odor: Slight chlorine odor
Signal Word: DANGER

MAJOR HEALTH HAZARDS: CORROSIVE. CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. CAUSES SERIOUS EYE IRRITATION. HARMFUL IF SWALLOWED. MAY CAUSE DAMAGE TO CARDIOVASCULAR SYSTEM; BLOOD; SPLEEN; DIGESTIVE SYSTEM; AND STOMACH THROUGH PROLONGED OR REPEATED EXPOSURE VIA ORAL ROUTE. MAY BE HARMFUL IN CONTACT WITH SKIN. THIS MATERIAL IS A POTENTIAL ENDOCRINE DISRUPTOR.

PHYSICAL HAZARDS: Dried material can ignite upon contact with combustibles.

AQUATIC TOXICITY: VERY TOXIC TO AQUATIC LIFE, FOR ACUTE EXPOSURES. HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS, FOR CHRONIC EXPOSURES.

PRECAUTIONARY STATEMENTS: Do not breathe mist, vapors, or spray. Wash skin and contaminated clothing thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves, protective clothing, eye, and face protection.

ADDITIONAL HAZARD INFORMATION: This material is corrosive and an oxidizer when dry. This material's pH and oxidative action contribute to its health and physical hazards. If not stored in original container; store in a corrosive resistant container with a resistant inner liner. Always package, store, transport and dispose of all waste and contaminated equipment in accordance with all applicable federal, state, and local health and environmental regulations. Do not contaminate with acids, reducing agents, combustible materials, oxidizing materials, hypochlorite, organic solvents and compounds, garbage, dirt, organic matter, household products, chemicals, soap products, paint products, vinegar, beverages, oils, pine oil, dirty rags, sulfur-containing rubber, or any other foreign matter.

HAZARD CLASSIFICATION:

<table>
<thead>
<tr>
<th>GHS: CONTACT HAZARD - SKIN:</th>
<th>Category 1B - Causes severe skin burns and eye damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS: CONTACT HAZARD - EYE:</td>
<td>Category 1 - Causes serious eye damage</td>
</tr>
<tr>
<td>GHS: ACUTE TOXICITY - ORAL:</td>
<td>Category 4 - Harmful if swallowed</td>
</tr>
<tr>
<td>GHS: TARGET ORGAN TOXICITY (REPEATED)</td>
<td>Category 2 - May cause damage to blood, spleen, and</td>
</tr>
</tbody>
</table>

Print date: 01-Sep-2020
### GHS SIGNAL WORD: DANGER

### GHS HAZARD STATEMENTS:

**GHS - Health Hazard Statement(s) -**
- Harmful if swallowed
- Causes severe skin burns and eye damage
- Causes serious eye irritation
- May cause damage to blood, spleen, and stomach through prolonged or repeated exposure

**Additional Hazards - GHS Hazards Not Otherwise Classified (HNOC):**
- MAY BE HARMFUL IN CONTACT WITH SKIN
- ACUTE AQUATIC HAZARD - CATEGORY 1: Very toxic to aquatic life
- CHRONIC AQUATIC HAZARD - CATEGORY 3: Harmful to aquatic life with long lasting effects

**GHS - Precautionary Statement(s) - Prevention**
- Do not breathe mist, vapors, or spray
- Wash skin and contaminated clothing thoroughly after handling
- Do not eat, drink or smoke when using this product
- Avoid release to the environment
- Wear protective gloves, protective clothing, eye, and face protection

**GHS - Precautionary Statement(s) - Response**
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- Rinse mouth if ingested
- IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- IF INHALED: Remove person to fresh air and keep comfortable for breathing
- IF EXPOSED (skin): Immediately call a POISON CENTER OR LICENSED HEALTH CARE PROVIDER
- Specific treatment for skin contact (see First Aid information on product label and/or Section 4 of the SDS)
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- If eye irritation persists: Get medical advice/attention
- IF EXPOSED: Get medical advice/attention if you feel unwell
- Collect spillage
GHS - Precautionary Statement(s) - Storage
• Store in a secure manner

GHS - Precautionary Statement(s) - Disposal
• Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations

Physical Hazards Not Otherwise Classified
• NFPA Class 1 Oxidizer (An oxidizer that does not moderately increase the burning rate of combustible materials with which it comes into contact)

Hazard Not Otherwise Classified (HNOC)-Health
• May be harmful in contact with skin
• Potential endocrine disruptor

See Section 11: TOXICOLOGICAL INFORMATION

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Percent [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>89.2 - 89.7</td>
</tr>
<tr>
<td>Sodium Chlorite</td>
<td>7758-19-2</td>
<td>7.2 - 7.8</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

INHALATION: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF INHALED: Call a POISON CENTER OR LICENSED HEALTH CARE PROVIDER if you feel unwell. If breathing is difficult, oxygen should be administered by qualified personnel.

SKIN CONTACT: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. See specific treatment for skin contact below in this Section Under "Notes to Physicians". GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF EXPOSED (eyes): Immediately call a POISON CENTER OR LICENSED HEALTH CARE PROVIDER. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: IF SWALLOWED: Immediately call a POISON CENTER OR LICENSED HEALTH CARE PROVIDER. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. See additional information in "Notes to Physician" below in this Section. GET MEDICAL ATTENTION IMMEDIATELY.

Most Important Symptoms/Effects (Acute and Delayed):
**Acute Symptoms/Effects:**

**Inhalation (Breathing):** Inhalation of airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, bronchio-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

**Skin:** Skin Corrosion. Skin exposure to gas or liquid may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

**Eye:** Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye-lids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to internal eye structures.

**Ingestion (Swallowing):** Ingestion: Exposure by ingestion may cause irritation, nausea, and vomiting. Oxidation may cause significant metabolic issues such as: methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

**Delayed Symptoms/Effects:**
- Repeated and prolonged skin contact may cause a dermatitis

**Protection of First-Aiders:** Protect yourself by avoiding contact with this material. Avoid contact with skin and eyes. Do not ingest. Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

**Notes to Physician:** Treat as a corrosive due to the pH of this material. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. There is no specific antidote. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation. Ingestion of even small amounts of solution should be closely monitored for methemoglobinemia, hemolysis, and glutathione depletion, followed by renal failure. This chemical acts similarly to its related compound chlorate, and produces a drug induced G6PD deficiency. Methylene blue has not been reported as effective. Consult the PubMed Case Report PMID 22996135 for the case description and treatment utilized. Chlorine dioxide vapors are emitted when this product contacts acids or chlorine. If these vapors are inhaled, monitor patient closely for delayed development of pulmonary edema which may occur up to 48-72 hours post-inhalation. Following ingestion, neutralization and use of activated charcoal is not indicated. In vitro studies have shown that activated charcoal does not adsorb chlorate/chlorite ions. The benefit of decontamination after ingestion is not certain and not recommended.

**Interaction with Other Chemicals Which Enhance Toxicity:** Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes.

**Medical Conditions Aggravated by Exposure:** May aggravate preexisting conditions such as.: Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin. Respiratory conditions including asthma and other breathing disorders. Ingestion may induce G6PD deficiency, hemolysis and renal failure. G6PD deficiency, hemoglobinopathies, renal compromise, and conditions causing hypoxia may be aggravated by ingestion of this material.

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**SECTION 5. FIRE-FIGHTING MEASURES**

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Fire Hazard: According to NFPA 400 (Hazardous Materials Code), this material is classified as a Class 1 Oxidizer. Class 1 Oxidizers are oxidizers that do not moderately increase the burning rate of combustible materials with which it comes into contact. Avoid evaporation to dryness. Dried material can ignite upon contact with combustibles.

Explosive properties: This product may represent an explosion hazard if it contacts acids, chlorine, or organic materials (Refer to Sections 7 and 10).

Extinguishing Media: Use extinguishing agents appropriate for surrounding fire. Water is the only effective extinguisher of sodium chlorite.

Unsuitable Extinguishing Media: Water is the only effective extinguisher of sodium chlorite.

Unusual Hazards: Do not allow sodium chlorite solutions to evaporate to dryness; this product becomes a fire or explosion hazard if allowed to dry and can ignite in contact with combustible materials.

Fire Fighting: Wear NIOSH approved positive-pressure self-contained breathing apparatus. Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Hazardous Combustion Products: Chlorine; Oxides of sodium

Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Not sensitive.

Lower Flammability Level (air): Not flammable

Upper Flammability Level (air): Not flammable

Flash point: Not applicable

Auto-ignition Temperature: Not applicable

Physical Hazards Not Otherwise Classified
- NFPA Class 1 Oxidizer (An oxidizer that does not moderately increase the burning rate of combustible materials with which it comes into contact)

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate hazard area and deny entry. Keep unnecessary and unprotected personnel from entering the area. Avoid contact with skin and eyes. If material is allowed to dry, DO NOT make airborne. DO NOT breathe dust. Wear appropriate personal protective equipment recommended in Section 8 of the SDS.

Personal Protective Equipment: Cleanup personnel must wear proper protective equipment. For Unknown Concentrations or exposures above IDLH (Immediately Dangerous to Life or Health) - Any supplied-air respirator
with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece. See section 8 for information on personal protective equipment.

**Emergency Procedures:** Evacuate unnecessary personnel and eliminate all sources of ignition. For other than minor leaks, immediately implement predetermined emergency plan. Restrict access to the area until cleanup is complete. Stop the release if it can be done safely from a distance. Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release. Sodium chlorite may represent an explosion hazard if it contacts acids or chlorine. If such contact is possible, evacuation procedures must be placed into effect. Cleanup personnel must wear proper protective equipment. Notify all downstream water users of possible contamination.

**Environmental Precautions:** This material is harmful to aquatic life. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies. See Section 12 for additional ecological information.

**Methods and Materials for Containment, Confinement, and/or Abatement:** Contain spill. Spilled materials may be absorbed using non-combustible and non-organic commercial absorbents. Dampen and scoop spilled material into clean, dedicated equipment. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. Keep collected material damp and put into drums. Dried material can ignite upon contact with combustibles. Dispose of promptly. Dispose of in accordance with all applicable regulations.

**Recovery:** Liquid sodium chlorite solutions can be absorb in vermiculite, dry sand or earth and place in corrosive-resistant containers. Contact OxyChem Technical Service for confirmation of other types of absorbents before utilizing.

**Neutralization:** Due to the reactivity of sodium chlorite, neutralization for disposal purposes should be avoided whenever possible. Sodium chlorite neutralization procedures are available by contacting OxyChem Technical Service Department at 800-733-1165 option #1. Sodium chlorite neutralization procedures must be carried out ONLY by properly trained personnel wearing appropriate personal protective equipment and ONLY after thoroughly reviewing the neutralization procedures with manufacturer.

**Final Disposal:** Runoff may pollute waterways. If sodium chlorite is spilled or becomes a waste, it must be disposed of in accordance with local, state, and Federal regulations by a NPDES permitted out-fall or in a permitted hazardous waste treatment, storage, and disposal facility. For waste disposal, see section 13.

**Additional Disaster Prevention Measures:** Keep away from water supplies and sewers. Do not use combustible absorbents such as rags, sawdust, and other natural organic sorbents.

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**SECTION 7. HANDLING AND STORAGE**

**Handling:**

**Precautions for Safe Handling:** Do not contaminate sodium chlorite with incompatible materials such as dirt, organic matter, oxidizers, reducing agents, chemicals, soap products, solvents, acids, paint products, or combustible materials. Do not store or transport sodium chlorite with incompatible materials. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Triple rinse empty containers thoroughly with water and dispose of in accordance with label instructions.
**AKTA KLOR 7.5**

**Technical measures/precautions:** All instrumentation should be designed to prevent possible solution freezing in the instrument. Greaseless lubricants should be used in mechanical equipment where there is a potential for leaks or spills. Pumps should not be operated against closed valves as this may result in heating solution above its decomposition temperature.

**Other precautions:** This material is a more severe corrosive and oxidizer when dry. This material’s pH and oxidative action contribute to its health and physical hazards.

**Prevention of contact:** Do not breathe dust or spray mist. Wash skin and contaminated clothing thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye, and face protection. Avoid contact with incompatible materials. Avoid release to the environment.

**Storage:**

**Safe Storage Conditions:** Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Class 1). Store in tightly closed, labeled containers away from combustible materials. Store in a cool, dry area. Store in a well-ventilated area. Store below 212°F (100°C). Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

**Technical measures:** All equipment purchased for handling and storing sodium chlorite solutions should be verified by the manufacturer or vendor to be suitable for use with sodium chlorite. Use appropriate containment to avoid environmental contamination. The storage area should not be exposed to direct sunlight or ultraviolet light. It should be fire resistant and have an effective sprinkler system with good ventilation. Do not allow solution to evaporate to dryness; this product becomes a fire or explosion hazard if allowed to dry and can ignite in contact with combustible materials. Storage conditions should comply with the requirements established by the National Fire Protection Association’s NFPA 1 – Uniform Fire Code and/or NFPA 400 – Hazardous Materials Code and/or the International Code Council’s (ICC) International Fire Code. Since both NFPA and ICC codes are used throughout the U.S., consult with local fire departments to determine which codes apply.

**Incompatible Substances:** Acids, reducing agents, combustible material, oxidizing agents, hypochlorite, organic solvents and compounds, garbage, dirt, organic materials, household products, chemicals, soap products, paint products, vinegar, beverages, oils, pine oil, dirty rags, sulfur-containing rubber, or any other foreign matter.

**Packaging Material:** Any containers used to store sodium chlorite solutions should be constructed of one of the following materials:
1. Fiberglass reinforced polyester with Hetron 922 resin or equivalent, color natural, with UV protection, and no internal insulation
2. High density polyethylene (HDPE)
3. Titanium.

**Additional Information:**

- NFPA Class 1 Oxidizer (An oxidizer that does not moderately increase the burning rate of combustible materials with which it comes into contact)

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**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**
REGULATORY EXPOSURE LIMIT(S):  
This product does not contain any components that have regulatory occupational exposure limits (OEL’s).

NON-REGULATORY EXPOSURE LIMIT(S):  
This product does not contain any components that have advisory (non-regulatory) occupational exposure limits (OEL’s); however, the manufacturer has established internal Recommended Exposure Level(s) [REL(s)] as noted below. 

*Recommended Exposure Limits (REL’s) are non-regulatory occupational exposure limits that the manufacturer has established based on health effects data.*

<table>
<thead>
<tr>
<th>Component</th>
<th>OXY REL 8 hr TWA</th>
<th>OXY REL STEL</th>
<th>OXY REL Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite (7758-19-2 7.2 - 7.8 %)</td>
<td>1 mg/m$^3$</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS:  Use only in well-ventilated areas. Provide local exhaust ventilation where vapors, mist or aerosols may be generated. Where sodium chlorite dust may be present, ventilation of the work area should be accomplished as necessary to maintain concentrations in air below 1 mg/m$^3$.

PERSONAL PROTECTIVE EQUIPMENT:

**Eye Protection:**  Wear chemical safety goggles. Where splashing or spraying is possible, use a face-shield in addition to chemical protective goggles. Provide an emergency eyewash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:**  Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with water, and launder clothing before reuse or dispose of properly. Clothing should be rinsed with water before disposal.

**Hand Protection:**  Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

**Protective Material Types:**  Neoprene

**Respiratory Protection:**  A NIOSH approved full-face respirator equipped with N95 (dust, fume, mist) cartridges may be permissible when symptoms have been observed that are indicative of overexposure. If chlorine or chlorine dioxide is present, an acid gas cartridge is also required. An approved self-contained breathing apparatus operated in the pressure demand mode or an airline respirator with escape pack is required when an air purifying respirator is not adequate or for spills / emergencies of unknown concentrations. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

**HYGIENE MEASURES:**  Obtain proper training prior to use. An emergency eye wash fountain and quick drench shower should be provided in the immediate work area. Good housekeeping practices are important where sodium chlorite is used. All spills should be contained and immediately recovered or flushed with water into a chemical sewer or a segregated holding tank or pond provided for the specific purpose of neutralization. Sodium chlorite must never be flushed to sanitary sewer or other outlet connecting to waterways to uncontrolled runoff streams. Contact local and federal authorities for applicable regulations.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Color:** Pale, yellow
- **Odor:** Slight chlorine odor
- **Molecular Weight:** 90.45
- **Molecular Formula:** NaClO2
- **Chemical Family:** Sodium Chlorite Solution
- **pH:** >12 @ 25 °C
- **Freezing Point/Range:** No data available
- **Flash point:** Not applicable
- **Vapor Pressure:** No data available
- **Vapor Density (air=1):** No data available
- **Relative Density/Specific Gravity (water=1):** 1.05 - 1.07 @ 25 °C
- **Density:** 8.8 lbs/gal @ 25 °C
- **Water Solubility:** Soluble
- **Partition Coefficient (n-octanol/water):** Not applicable
- **Auto-ignition Temperature:** Not applicable
- **Decomposition Temperature:** No data available
- **Odor Threshold [ppm]:** No data available
- **Evaporation Rate (ether=1):** No data available
- **Crystallization Temperature:** -2.5°C (27.2°F)
- **Vapor Volatility:** 89.2-89.9% by volume
- **Flammability (solid, gas):** No data available
- **Lower Flammability Level (air):** Not flammable
- **Upper Flammability Level (air):** Not flammable
- **Viscosity:** No information available

SECTION 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable at normal temperatures and pressures.

**Reactivity:** Not reactive under normal temperatures and pressures.

**Possibility of Hazardous Reactions:** Avoid heat, flames, sparks and other sources of ignition. Avoid evaporation to dryness. Dried material can ignite upon contact with combustibles. Avoid contamination with foreign materials. Avoid exposure to sunlight or ultraviolet light.

**Conditions to Avoid (e.g., static discharge, shock, or vibration):** Avoid mechanical shock or impact, if contaminated.

**Incompatible Substances:** Acids, reducing agents, combustible material, oxidizing agents, hypochlorite, organic solvents and compounds, garbage, dirt, organic materials, household products, chemicals, soap products, paint products, vinegar, beverages, oils, pine oil, dirty rags, sulfur-containing rubber, or any other foreign matter.
**Hazardous Decomposition Products:** Chlorine dioxide is formed on contact with acids, Thermal decomposition products include chlorine and oxides of sodium.

**Hazardous Polymerization:** Will not occur.

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**POTENTIAL HEALTH EFFECTS:**

**ACUTE TOXICITY:**

**Eye contact:** Causes serious eye damage. Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. May cause permanent eye damage including blindness. Significant and prolonged contact may cause damage to the internal eye structures.

**Skin contact:** Causes severe skin burns and eye damage. May cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns. Acute dermal toxicity was dependent on the product concentration and its physical state. The most concentrated existing form (80%) induced severe cutaneous reactions and necrosis, which may have enhanced the irritant properties and systemic availability of the product leading to an LD50 of 134 mg/kg body weight. Conversely, the 31% solution induced at most mild skin irritation thus limiting the systemic passage of the product to the blood and leading to an LD50 higher than 2000 mg/kg body weight. Dermal absorption of a 30% liquid solution ranges approximately 5 - 10%.

**Inhalation:** Inhalation may cause coughing, irritation (possibly severe), redness of upper and lower airways, shortness of breath, chemical burns and possibly pulmonary edema. Pulmonary edema may develop several hours after a severe acute exposure.

**Ingestion:** Harmful if swallowed. Ingestion may cause irritation, nausea, and vomiting. Causes significant metabolic issues through oxidation. May induce methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

**CHRONIC TOXICITY:**

Sodium chlorite has produced hemolytic anemia in several animal species at concentrations of 100 mg/L or higher. In a subchronic study using rats, hematological alterations included decreased erythrocyte counts, hemoglobin levels, and hemacrit. Methemoglobin levels decreased in females, but increased in males. There is no evidence of kidney effects in humans; however, in animal studies with sodium chlorite, there is limited evidence of kidney effects. Repeated and prolonged skin contact may result in dermatitis.

**SIGNS AND SYMPTOMS OF EXPOSURE:**

Signs and symptoms of exposure vary, and are dependent on the route of exposure, degree of exposure, and duration of exposure.

**Inhalation (Breathing):** Breathing (Inhalation): Inhalation of airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, bronchio-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

**Skin:** Skin Corrosion. Skin exposure to gas or liquid may cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third degree burns.

**Eye:** Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eye-lids, conjunctivitis,
corneal edema, and corneal burn. Significant and prolonged contact may cause damage to internal eye structures. **Ingestion (Swallowing):** Ingestion: Exposure by ingestion may cause irritation, nausea, and vomiting. Oxidation may cause significant metabolic issues such as: methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

**Interaction with Other Chemicals Which Enhance Toxicity:** Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes.

GHS HEALTH HAZARDS:

- **GHS: CONTACT HAZARD - SKIN:** Category 1B - Causes severe skin burns and eye damage
- **GHS: CONTACT HAZARD - EYE:** Category 1 - Causes serious eye damage
- **GHS: ACUTE TOXICITY - ORAL:** Category 4 - Harmful if swallowed
- **GHS: ACUTE TOXICITY - DERMAL:** Category 5 - May be harmful in contact with skin
- **GHS: TARGET ORGAN TOXICITY (REPEATED EXPOSURE):** Category 2 - May cause damage to blood, spleen, and stomach through prolonged or repeated exposure

**TOXICITY DATA:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50 (mg/kg (Rat))</th>
<th>Dermal LD50 (mg/kg (Rabbit))</th>
<th>Inhalation LC50 (mg/L (4-h Rat))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>165</td>
<td>107.2</td>
<td>230</td>
</tr>
</tbody>
</table>

**Eye Irritation/Corrosion:** The product is classified as causing serious eye injury (Category 1, H318), according to criteria of the GHS.

**Skin Irritation/Corrosion:** This product is classified as causing severe skin burns (Category 1, H314), according to GHS classification criteria.

**Skin Absorbent / Dermal Route:** May be harmful in contact with skin. Dermal absorption of a 30% liquid solution ranges approximately 5 - 10%.

**RESPIRATORY OR SKIN SENSITIZATION:** Not classified as a skin or respiratory sensitizer per GHS criteria.

**CARCINOGENICITY:** There is inadequate evidence for the carcinogenicity of sodium chlorite in experimental animals. No data were available from studies in humans on the carcinogenicity of sodium chlorite. This product is not classified as a carcinogen by NTP, IARC or OSHA. Not classified as a carcinogen per GHS criteria.

**SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):** The substance is not classified as a specific target organ toxicant after single exposure per GHS criteria.

**SPECIFIC TARGET ORGAN TOXICITY (Repeated or Prolonged Exposure):** This product is classified as GHS Category 2 and may cause damage to blood, spleen, and stomach through prolonged or repeated exposure.
INHALATION HAZARD: Inhalation is not likely from vapors due to low vapor pressure; however, if mists are inhaled may cause respiratory tract irritation. Its action in the respiratory tract is due to its strong oxidizing capability. Symptoms of pulmonary congestion and edema may develop after a latency period of several hours following severe acute exposure to mists.

GERM CELL/IN-VITRO MUTAGENICITY: Not classified as a mutagen per GHS criteria. Sodium chlorite has tested positive in some studies. The significance of these test results for human health is unclear because the oxidizing effects of the chlorite or salting effects of sodium may significantly affect the ability of the tests to accurately detect mutagens.

REPRODUCTIVE TOXICITY: Not classified as a reproductive toxin per GHS criteria. There is limited evidence of male reproductive effects in animal studies.

DEVELOPMENTAL TOXICITY: Not classified as a developmental or reproductive toxin per GHS criteria. Observations in animal studies include decreased serum levels of thyroid hormones in offspring.

ASPIRATION HAZARD: Not classified as an aspiration hazard per GHS criteria.

TOXICOKINETICS: The time taken to absorb 50% of the dose for sodium chlorite was 3.5 ± 1.06 hours. The absorption rate constant was 0.198 ± 0.06/hour. The time taken to eliminate 50% of the dose from the plasma when detected as 36Cl was 35.2 ± 3.0 hours. After 72 h, radioactivity from chlorite was found at the highest level in the plasma, followed by stomach, testes, skin, lung, duodenum, kidney, carcass, spleen, ileum, bone marrow and liver. In blood, chlorite levels were distributed evenly between plasma and packed cells. For sodium chlorite, 87 and 13% of initial dose (36 -Cl) was found in urine and feces, respectively. 36-Cl was not detected in expired air throughout the 72 hour time period. Chloride, chlorite and chlorate were found in rat urine 72 hours after the administration. The major metabolite was chloride, representing 31.6% of the initial dose of chlorite.

METABOLISM: May metabolize to form elevated chloroform levels in the liver and brain but not in blood.

BIOLOGICAL DISTRIBUTION: See Toxicokinetics above.

PATHOGENICITY AND ACUTE INFECTIOUSNESS (ORAL, DERMAL, AND INHALATION): Not applicable.

ENDOCRINE DISRUPTOR: Sodium chlorite is listed on The Endocrine Disruptors Exchange's (TEDX) List of Potential Endocrine Disruptors database of chemicals with the potential to affect the endocrine system. Every chemical on the TEDX List has one or more verified citations published, accessible, primary scientific research demonstrating effects on the endocrine system.

NEUROTOXICITY: Not Available.

IMMUNOTOXICITY: Not available.

Hazard Not Otherwise Classified (HNOC)-Health
- May be harmful in contact with skin
- Potential endocrine disruptor

SECTION 12. ECOLOGICAL INFORMATION
ECOTOXICITY (EC, IC, and LC):
Ecotoxicity - Available LOLI Data for Components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Fish:</th>
<th>Invertebrate Toxicity:</th>
<th>Algae Toxicity:</th>
<th>Other Toxicity:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>*LC50 Brachydanio rerio: 100 - 500 mg/L 96h static *LC50 Lepomis macrochirus: 100 mg/L 96h static *LC50 Oncorhynchus mykiss: 100 mg/L 96h static</td>
<td>*EC50 Daphnia magna: 0.026 mg/L 48h *EC50 Daphnia magna: 0.012 - 0.018 mg/L 48h *EC50 Daphnia magna: 0.25 - 0.33 mg/L 48h</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Aquatic Toxicity:
LC50 Rainbow trout = 290 mg/l as 80% NaClO2 (96 hour)
LC50 Bluegill = 265-310 mg/l as 80% NaClO2 (96 hour)
LC50 Sheepshead minnow = 62-90 ppm (96 hour).

Invertebrate Toxicity:
LC50 Daphnia Magna = 0.29 mg/L as 80% NaClO2 (48 hour)

Other Toxicity:
LD50 Mallard duck = 0.49-1.00g/kg as 80% NaClO2 (gavage)
LD50 Bob White quail = 0.39 - 0.66 g/kg as 80% NaClO2 (gavage)
Sodium chlorite in the diet of birds was not acutely toxic. Eight-day dietary LC50's in the Mallard duck and Bob White quail were > 5,000 ppm

FATE AND TRANSPORT:

PERSISTENCE:  This material will eventually degrade to sodium chloride.

BIODEGRADATION:  This material is inorganic and not subject to biodegradation; however, chlorite ions are reduced by some bacteria under anaerobic conditions. Sodium chlorite is a strong oxidizing agent and under proper reducing conditions is readily reduced to chloride, and to a lesser extent, chlorate. In strong acidic conditions, chlorite can change into chlorine dioxide.

BIOCONCENTRATION:  This material will not bioaccumulate.

BIOACCUMULATIVE POTENTIAL:  Bioaccumulation in aquatic species test does not need to be conducted as the substance has a low potential for bioaccumulation (a log Kow < 3) and is an inorganic substance.

MOBILITY IN SOIL:  Not applicable.

SECTION 13. DISPOSAL considerATIONS

Waste from material:
Dispose in accordance with all applicable regulations. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with incompatible materials could cause a reaction and fire. Contact Technical Service to obtain neutralization instructions. Sodium chlorite is toxic to fish and aquatic organisms. Keep out of water supplies and sewers. If sodium chlorite is spilled or becomes a waste, it must be disposed of in accordance with local, state, and Federal regulations by a NPDES permitted out-fall or in a permitted hazardous waste treatment, storage, and disposal facility.

**Container Management:**
Containers are non-refillable. Do not reuse or refill containers. Offer for recycling if available. Offer for reconditioning if appropriate. Triple rinse or pressure rinse container promptly after emptying. Triple rinse containers 5-gallons or smaller as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Triple rinse containers larger than 5 gallons as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip. Container rinsate must be disposed of in compliance with applicable regulations.

**Contaminated Material:**
Dispose according to appropriate regulations.

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**SECTION 14. TRANSPORT INFORMATION**

**LAND TRANSPORT**

**U.S. DOT 49 CFR 172.101:**

| UN NUMBER: | UN1908 |
| PROPER SHIPPING NAME: | Chlorite solution |
| HAZARD CLASS/ DIVISION: | 8 |
| PACKING GROUP: | II |
| LABELING REQUIREMENTS: | 8 |
| MARINE POLLUTANT: | Yes |

Special provisions for transport:
- Packaging Exceptions: A3; A6; A7; B2; IB2; N34; T7; TP2; TP24.
- Non-bulk Packaging: 154.

**CANADIAN TRANSPORTATION OF DANGEROUS GOODS:**

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SDS No.: M47032
Supersedes Date: 2015-12-January

UN NUMBER: UN1908
SHIPPING NAME: Chlorite solution
CLASS OR DIVISION: 8
PACKING/RISK GROUP: II
LABELING REQUIREMENTS: 8
CAN. MARINE POLLUTANT: Marine Pollutant

MARITIME TRANSPORT (IMO / IMDG)
UN NUMBER: UN1908
PROPER SHIPPING NAME: Chlorite Solution
HAZARD CLASS / DIVISION: 8
Packing Group: II
LABELING REQUIREMENTS: 8
MARINE POLLUTANT: YES

AIR TRANSPORT (ICAO / IATA)
Special Instructions CAO: IATA Certificate for shipping personnel is required

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15. REGULATORY INFORMATION

U.S. REGULATIONS

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

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):
Not regulated.

SARA EHS Chemical (40 CFR 355.30)
Not regulated.

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):
Acute Health Hazard, Chronic Health Hazard

SARA HAZARD CATEGORIES ALIGNED WITH GHS (2018):
Health Hazard - Acute Toxin (any route of exposure)
Health Hazard - Skin Corrosion or Irritation
Health Hazard - Serious eye damage or eye irritation
Health Hazard - Specific Target Organ Toxicity (STOT) Repeat Exposure (RE)
Health Hazard - HNOC

EPCRA SECTION 313 (40 CFR 372.65):
Not regulated.
DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):  
No components in this material are regulated under DHS

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):  
Not regulated.


FIFRA LABELING REQUIREMENTS: - This chemical is a pesticide product registered by the United States Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.  
- FIFRA Signal Word - DANGER  
- Corrosive  
- Causes irreversible eye damage  
- Causes skin burns  
- Harmful if swallowed, inhaled, or absorbed through skin  
- This product is toxic to fish and aquatic organisms  
- Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry.  
- Mix only into water  
- Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion  
- Do not contaminate with moisture, garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter

FDA: This material has Generally Recognized As Safe (GRAS) status under specific U.S. Food and Drug Administration (FDA) regulations, for specified applications. Additional information is available from the Code of Federal Regulations, which is accessible on the FDA’s website. Only food grade product meets the FDA’s Food Safety Modernization Act (FSMA) requirements, and is guaranteed to be produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the FDA. Food grade product is produced in a facility that is accredited as a Safe Quality Food (SQF) Level 2 Facility, certified under the Global Food Safety Initiative (GFSI), and meets the Food Chemical Codex (FCC) requirements.

EPA’S CLEAN WATER AND CLEAN AIR ACTS:  
Component(s) not listed on impacted regulatory lists.

NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA Inventory</th>
<th>TSCA ACTIVE LIST</th>
<th>TSCA 12(b)</th>
<th>TSCA - Section 4</th>
<th>TSCA - Section 5</th>
<th>TSCA - Section 6</th>
<th>TSCA - Section 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>Listed</td>
<td>ACTIVE</td>
<td>Not Listed</td>
<td>Not listed</td>
<td>Not Listed</td>
<td>Not listed</td>
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<tr>
<td>7758-19-2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CANADIAN CHEMICAL INVENTORY: All components of this product are listed on either the DSL or the NDSL.

<table>
<thead>
<tr>
<th>Component</th>
<th>DSL</th>
<th>NDSL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
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STATE REGULATIONS

California Proposition 65:
This product and its ingredients are not listed on the California Governor’s current list of Carcinogens, Reproductive Toxicants, and/or Candidate Carcinogens (Proposition 65), but it may contain trace amounts of impurities that are listed. For additional information, contact OxyChem Customer Relations.

<table>
<thead>
<tr>
<th>Component</th>
<th>California Proposition 65 Cancer WARNING:</th>
<th>California Proposition 65 CRT List - Male reproductive toxin:</th>
<th>California Proposition 65 CRT List - Female reproductive toxin:</th>
<th>Massachusetts Right to Know Hazardous Substance List</th>
<th>Rhode Island Right to Know Hazardous Substance List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>New Jersey Right to Know Hazardous Substance List</th>
<th>New Jersey Special Health Substance List</th>
<th>New Jersey Environmental Hazardous Substance List</th>
<th>Pennsylvania Right to Know Hazardous Substance List</th>
<th>Pennsylvania Right to Know Special Hazardous Substances</th>
<th>Pennsylvania Right to Know Environmental Hazard List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>1689 - corrosive; reactive - second degree</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

CANADIAN REGULATIONS

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Canada - CEPA - Schedule I - List of Toxic Substances</th>
<th>Canada - NPRI</th>
<th>Canada - CEPA - 2010 Greenhouse Gases (GHG) Subject to Mandatory Reporting</th>
<th>CANADIAN CHEMICAL INVENTORY:</th>
<th>NDSL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>7758-19-2 (7.2 - 7.8)</td>
<td>Not listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

PCP Registration:
- Not registered as a pesticide in Canada. Do not sell for pesticide uses in Canada

SECTION 16. OTHER INFORMATION

Prepared by: Occidental Chemical Corporation - HES&S Product Stewardship Department

Rev. Date: 01-Sep-2020

Reason for Revision:
• Scheduled review
• Split original SDS into multiple SDSs to account for GHS hazard classification differences
• Change of company physical address: SEE SECTION 1
• Trade Name has been added: SEE SECTION 1
• Updated Customer Service Contact Information: SEE SECTION 1
• Included additional information for other usage that may be restricted and/or prohibited: SEE SECTION 1
• Emergency Overview was revised: SEE SECTION 2
• GHS Symbol(s) added or changed: SEE SECTION 2
• Changed GHS Classification: SEE SECTION 2
• Modified GHS Hazard and Precautionary Statements: SEE SECTION 2
• Added or revised Hazards Not Otherwise Classified: SEE SECTION 2
• Added Hazards Not Otherwise Classified (HNOC): SEE SECTION 2
• Changed range on formulation. SEE SECTION 3
• Updated First Aid Measures: SEE SECTION 4
• Change to "Note to Physician" (added/changed/or deleted): SEE SECTION 4
• Modified Fire Fighting Measure Recommendations: SEE SECTION 5
• Added Physical Hazards Not Otherwise Classified to format: SEE SECTIONS 5&7
• Revised Accidental Release Measures: SEE SECTION 6
• Revised Handling and Storage Recommendations: SEE SECTION 7
• PPE recommendations have been modified: SEE SECTION 8
• Added Hygiene Measures SEE SECTION 8
• Updated Physical and Chemical Properties. SEE SECTION 9
• Toxicological Information has been revised: SEE SECTION 11
• Ecological Information has been modified: SEE SECTION 12
• Updated Disposal Considerations. SEE SECTION 13
• Updated Transportation Information: SEE SECTION 14
• Regulatory Information Changes: SEE SECTION 15
• Revised SARA Hazard Categories 311/312 HAZARD CATEGORIES (40 CFR 370.21): SEE SECTION 15
• Added LOLI tables such as EPA’S Clean Water / Air Act, TSCA status, DHS, PSM, EPCRA, CERCLA, Federal Canadian: SEE SECTION 15
• Added Department of Homeland Security Anti-Terrorism Information: SEE SECTION 15
• WHMIS Classifications were removed from format: SEE SECTION 15
• Updated TSCA Status Table: SEE SECTION 15

IMPORTANT:
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OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees.

Print date: 01-Sep-2020
End of Safety Data Sheet