1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Occidental Chemical Corporation
5005 LBJ Freeway, Suite 2200
P.O. Box 809050
Dallas, Texas 75380-9050

24 HOUR EMERGENCY TELEPHONE: 1-800-733-3665 or 1-972-404-3228 (U.S.);
32.3.575.55.55 (Europe);
1800-033-111 (Australia)

TO REQUEST AN MSDS: MSDS@oxy.com or 1-972-404-3245
CUSTOMER SERVICE: 1-800-752-5151 or 1-972-404-3700

MSDS NUMBER: M47032

SUBSTANCE: AKTA Klor 7.5

SYNONYMS:
7.5% Sodium Chlorite Solution

PRODUCT USE: potable water, food plant process water, poultry process water, CIP disinfection, oilfield water, white water paper mill systems, industrial cooling water

PRODUCT DESCRIPTION: AKTA Klor 7.5 is a registered antimicrobial pesticide. See Section 15 for the EPA Registration Number.

REVISION DATE: Jan 01 2007

2. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=3  FIRE=0  REACTIVITY=1

HMIS RATINGS (SCALE 0-4): HEALTH=3  FLAMMABILITY=0  REACTIVITY=1
POTENTIAL HEALTH EFFECTS:

INHALATION:
SHORT TERM EXPOSURE: irritation (possibly severe), burns, difficulty breathing, headache, dizziness, pulmonary edema
LONG TERM EXPOSURE: to our knowledge, no effects are known

SKIN CONTACT:
SHORT TERM EXPOSURE: irritation (possibly severe), may cause burns
LONG TERM EXPOSURE: dermatitis

EYE CONTACT:
SHORT TERM EXPOSURE: irritation (possibly severe), may cause burns, blurred vision, may cause blindness
LONG TERM EXPOSURE: to our knowledge, no effects are known

INGESTION:
SHORT TERM EXPOSURE: harmful or fatal if swallowed, irritation (possibly severe), burns
LONG TERM EXPOSURE: blood disorders, kidney damage, reproductive effects

CARCINOGEN STATUS:
OSHA: No
NTP: No
IARC: No

3. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: SODIUM CHLORITE
CAS NUMBER: 7758-19-2
PERCENTAGE: 7.2-7.8

COMPONENT: WATER
CAS NUMBER: 7732-18-5
PERCENTAGE: 89.2-89.7

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio-Pulmonary Resuscitation/Automatic External Defibrillation)
External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

SKIN CONTACT: Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

EYE CONTACT: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN: 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.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard. Avoid evaporation to dryness. Dried material can ignite upon contact with combustibles. This product may represent an explosion hazard if it contacts acids, chlorine or organic materials (Refer to Section 10).

EXTINGUISHING MEDIA: Use extinguishing agents appropriate for surrounding fire.

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.

SENSITIVITY TO MECHANICAL IMPACT: Not sensitive

SENSITIVITY TO STATIC DISCHARGE: Not sensitive

FLASH POINT: Not applicable

HAZARDOUS COMBUSTION PRODUCTS:
Thermal decomposition products or combustion: chlorine, oxides of sodium

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:
Keep unnecessary people away, isolate hazard area and deny entry. Contain spill. Spill materials may be absorbed using nonflammable 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. Dispose promptly. Dried material can ignite upon contact with combustibles. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a well-ventilated area. Store below 212 F (100 C). Avoid exposure to sunlight or ultraviolet light. Keep separated from incompatible substances (see Section 10 of the MSDS).

HANDLING: Do not taste or swallow. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or mist when opening container. Avoid creation of vapor or mist. Wash thoroughly after handling. Use clean utensils. Do not add the product to any dispensing device containing residuals of other products. 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 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. Dried material can ignite upon contact with combustibles.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
AKTA KLOR 7.5:
No occupational exposure limits established.

VENTILATION: Use only in well ventilated areas. Provide local exhaust ventilation where vapors, mist or aerosols may be generated.

EYE PROTECTION: Wear chemical safety goggles with a faceshield to protect against skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear protective clothing to minimize skin contact. Thoroughly clean and dry contaminated clothing before reuse. Discard contaminated leather goods.

GLOVES: Wear appropriate chemical resistant gloves.

PROTECTIVE MATERIAL TYPES: neoprene

RESPIRATOR: A NIOSH approved respirator with N95 (dust, fume, mist) filters may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure.
If chlorine or chlorine dioxide is present, an acid gas cartridge is also required.
When an air-purifying respirator is not adequate or for spills and/or emergencies of unknown concentrations, a NIOSH approved self-contained breathing apparatus or airline respirator with full-face piece is required.
A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace
conditions warrant use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>PHYSICAL STATE</td>
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</tr>
<tr>
<td>APPEARANCE</td>
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<tr>
<td>COLOR</td>
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</tr>
<tr>
<td>ODOR</td>
<td>slight chlorine odor</td>
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<tr>
<td>MOLECULAR WEIGHT</td>
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</tr>
<tr>
<td>MOLECULAR FORMULA</td>
<td>NaClO2</td>
</tr>
<tr>
<td>BOILING POINT</td>
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<td>FREEZING POINT</td>
<td>Not available</td>
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<tr>
<td>VAPOR PRESSURE</td>
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<td>VAPOR DENSITY</td>
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<tr>
<td>DENSITY</td>
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<tr>
<td>WATER SOLUBILITY</td>
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<tr>
<td>pH</td>
<td>&gt;12 @ 25 C</td>
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<tr>
<td>VOLATILITY</td>
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<tr>
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<td>EVAPORATION RATE</td>
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<tr>
<td>COEFFICIENT OF WATER/OIL DISTRIBUTION</td>
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10. STABILITY AND REACTIVITY

| Reactivity                      | Stable at normal temperatures and pressure. |

| Conditions to Avoid             | 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. |

| Incompatibilities               | 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 |

| Hazardous Decomposition        | Decomposition products on contact with acids: chlorine dioxide gas |
|                                | Thermal decomposition products or combustion: chlorine, oxides of sodium |

| Polymerization                 | Will not polymerize. |

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
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<th>AKTA KLOR 7.5:</th>
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<tr>
<td>TOXICITY DATA</td>
<td>165 mg/kg oral-rat LD50; &gt;2 gm/kg skin-rabbit LD50</td>
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</table>
| MUTAGENIC DATA                 | This material 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.

DEVELOPMENTAL/REPRODUCTIVE: Observations in animal studies include male reproductive effects and decreased serum levels of thyroid hormones in offspring.

CARCINOGEN STATUS: IARC: Animal Inadequate Evidence, Group 3

LOCAL EFFECTS:
Corrosive: inhalation, skin, eye, ingestion

ACUTE TOXICITY LEVEL:
Toxic: ingestion

TARGET ORGANS: blood, kidneys

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory system (including asthma and other breathing disorders), gastrointestinal disorders, skin disorders, blood disorders (including anemia)

HEALTH EFFECTS:

INHALATION:
ACUTE EXPOSURE:
Mists may cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. In some cases, pulmonary edema may develop.

CHRONIC EXPOSURE:
Depending on the concentration and duration of exposure, repeated or prolonged exposure may cause respiratory tract damage.

SKIN CONTACT:
ACUTE EXPOSURE:
Direct contact may cause severe irritation, pain, and possibly burns.

CHRONIC EXPOSURE:
Effects depend on concentration and duration of exposure. Repeated or prolonged contact may result in dermatitis or effects similar to acute exposure.

EYE CONTACT:
ACUTE EXPOSURE:
Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The degree of injury depends on the concentration and duration of contact.

CHRONIC EXPOSURE:
Effects similar to acute exposure depending on concentration and duration of contact.

INGESTION:
ACUTE EXPOSURE:
May cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effects on the esophagus and gastrointestinal tract may range from irritation to severe corrosion to death. Edema of the epiglottis and shock may occur.

CHRONIC EXPOSURE:
Rats administered sodium chlorite in drinking water developed symptoms of hemolysis, decreased hemoglobin concentrations and loss of packed cell volume in the blood of male rats treated with 100-500 mg/L for 30 and 60 days without any signs of methemoglobinemia. Red blood cell counts and hemoglobin concentrations returned to normal with red blood cell glutathione concentrations significantly depressed after 90 days. Repeated ingestion of small doses of sodium chlorate may cause anorexia, weight loss and kidney damage.
12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:
FISH TOXICITY: 290 mg/l (as 80% NaClO2) 96 hour(s) LC50 Rainbow Trout; 265-310 mg/l (as 80% NaClO2) 96 hour(s) LC50 Bluegill; 62-90 ppm 96 hour(s) LC50 Sheepshead minnow

INVERTEBRATE TOXICITY: 0.29 mg/l (as 80% NaClO2) 48 hour(s) LC50 Daphnia Magna

FATE AND TRANSPORT:
BIODEGRADATION: This material is inorganic and not subject to biodegradation.

PERSISTENCE: This material will eventually degrade to sodium chloride.

BIOCONCENTRATION: This material is believed not to bioaccumulate.

OTHER ECOLOGICAL INFORMATION: 0.49-1.00 g/kg (gavage) (as 80% NaClO2) LD50 Mallard Ducks; 0.66 g/kg (gavage) (as 80% NaClO2) LD50 Bobwhite Quail; Sodium chlorite in the diet of birds was not acutely toxic. Eight-day dietary LC50's in mallard ducks and bobwhite quail were both greater than 10,000 ppm in the diet.

13. DISPOSAL CONSIDERATIONS

Reuse or recycle if possible. 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 Customer Service to obtain neutralization instructions. Keep out of water supplies and sewers. May be subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D002.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
PROPER SHIPPING NAME: Chlorite solution
ID NUMBER: UN1908
HAZARD CLASS OR DIVISION: 8
PACKING GROUP: II
LABELING REQUIREMENTS: 8

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
SHIPPING NAME: Chlorite solution
UN NUMBER: UN1908
CLASS: 8
PACKING GROUP/RISK GROUP: II

15. REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):
SODIUM HYDROXIDE: 1000 LBS RQ


SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: Yes
CHRONIC: Yes
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No


STATE REGULATIONS:
California Proposition 65: Not regulated.

NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW:
REPORTING REQUIREMENT:
SODIUM CHLORITE 7758-19-2 7.2-7.8%

RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST:
SODIUM CHLORITE 7758-19-2 7.2-7.8%

SPECIAL HEALTH HAZARD SUBSTANCE LIST:
SODIUM CHLORITE 7758-19-2 7.2-7.8%

PENNSYLVANIA RIGHT TO KNOW:
REPORTING REQUIREMENT:
SODIUM CHLORITE 7758-19-2 7.2-7.8%
WATER 7732-18-5 89.2-89.7%

HAZARDOUS SUBSTANCE LIST:
SODIUM CHLORITE 7758-19-2 7.2-7.8%

ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:
SODIUM SULFATE 7757-82-6 0.04%
SODIUM HYDROXIDE 1310-73-2 0.141%

SPECIAL HAZARDOUS SUBSTANCE LIST:
Not regulated.

CANADIAN REGULATIONS:
CONTROLLED PRODUCTS REGULATIONS (CPR): This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information.
required by the CPR.

WHMIS CLASSIFICATION: E.

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): All components of this product are listed on the DSL.

16. OTHER INFORMATION

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SUITABILITY, STABILITY OR OTHERWISE. The information included herein is not intended to be all-inclusive as to the appropriate manner and/or conditions of use, handling and/or storage. Factors pertaining to certain conditions of storage, handling, or use of this product may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended to, and nothing herein shall be construed as a recommendation to, infringe any existing patents or violate any laws, rules, regulations or ordinances of any governmental entity.