OxyChem®

Responsible Care®
A Public Commitment

MATERIAL SAFETY DATA SHEET

Revised

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS NUMBER : M31035 **ISSUE DATE :** 07-31-00

PRODUCT NAME : ACL® 90 PLUS CHLORINATING COMPOSITION

Manufacturer's Name and Address :
Occidental Chemical Corporation, Occidental Tower
5005 LBJ Freeway, P.O. Box 809050
Dallas, TX 75380 (972) 404-3800

24 HOUR EMERGENCY TELEPHONE : 1-800-733-3665 OR 972-404-3228

TO REQUEST AN MSDS : 1-800-699-4970

CUSTOMER SERVICE : 1-800-752-5151

PRODUCT USE : Algicide, microbiocide/microbiostat, disinfectant, sanitizer, bactericide, fungicide, bleaching agent

CHEMICAL NAME : 1,3,5-Triazine-2,4,6 (1H,3H,5H)-trione, 1,3,5-trichloro-,

CHEMICAL FORMULA : C3N3O3Cl3

SYNONYMS/COMMON NAMES : Trichloroisocyanuric acid
Trichloro-s-triazinetrione
Trichlor

Revised

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NUMBER / NAME
87-90-1 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro-

EXPOSURE LIMITS
PEL: Not Established
TLV: Not Established
PELZ2:Not Established

PERCENTAGE
VOL ND
WT 98.4-100

COMMON NAMES:
TRICHLOROISOCYANIC ACID (MW 232.5)
TRICHLOROISOCYANURIC ACID
TRICHLORO-S-TRIAZINETRIONE
TRICHLOR

Listed On(List Legend Below):
00 12 16 22 51

2. COMPOSITION/INFORMATION ON INGREDIENTS (Continued)

LIST LEGEND

00 TSCA INVENTORY	12 PA HAZARDOUS SUBSTANCE
16 NJ WORKPLACE HAZ SUBSTANCE LST	22 CANADIAN DOMESTIC SUB LIST
51 EINECS	

Revised

3. HAZARDS IDENTIFICATION

********** EMERGENCY OVERVIEW **********

STRONG OXIDIZING AGENT.

CORROSIVE.

CAUSES EYE AND SKIN DAMAGE.

IRRITATING TO NOSE AND THROAT.

HARMFUL OR FATAL IF SWALLOWED.

* White crystalline solid, slight chlorine odor *

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY:

Inhalation, Ingestion.

TARGET ORGANS:

Eyes, Skin, Respiratory Tract, Gastrointestinal Tract.

IRRITANCY:

Severe, Potentially by all routes of exposure.

SENSITIZING CAPABILITY:

None known.

REPRODUCTIVE EFFECTS:

None known.

CANCER INFORMATION:

Not classified as carcinogenic by NTP, IARC, OSHA, ACGIH, or NIOSH.

SHORT-TERM EXPOSURE (ACUTE)

INHALATION:

Breathing dust or fumes is expected to be a primary route of exposure and may produce throat and respiratory tract irritation.

3. HAZARDS IDENTIFICATION (Continued)

EYES:

Contact can cause severe damage including burns and blindness.

SKIN:

On contact with moisture, this material readily hydrolyzes to acid which may result in burns if not promptly removed.

INGESTION:

May cause burns to gastrointestinal tract.

REPEATED EXPOSURE (CHRONIC)

No known chronic effects.

Chronic exposure to large amounts of this compound has not been characterized and the irritating properties of the compound make such an exposure highly unlikely.

SYNERGISTIC MATERIALS:

None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Pre-existing disorders affecting target organs.

4. FIRST AID MEASURES

EYES:

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 tissue. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

Immediately brush off excess chemical and flush with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse. GET MEDICAL ATTENTION if irritation persists.

INHALATION:

Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration stops, have a trained person administer artificial respiration. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. (If available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water. GET MEDICAL ATTENTION IMMEDIATELY.

4. FIRST AID MEASURES (Continued)

NOTES TO PHYSICIAN:

Probable mucosal damage may contraindicate the use of gastric lavage.

Revised

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable

Method: Not applicable

Autoignition Temperature: Not applicable

FLAMMABLE LIMITS IN AIR, BY % VOLUME

Upper: Not applicable
Lower: Not applicable

EXTINGUISHING MEDIA:

In case of fire or smoke call the fire department. Do not attempt to extinguish the fire without a self contained breathing apparatus (SCBA). Do not let the fire burn. Flood with copious amounts of water. DO NOT use ABC or other dry chemical extinguishers since there is the potential for a violent reaction.

FIRE FIGHTING PROCEDURES:

Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Using a 10% solution of sodium carbonate, thoroughly decontaminate fire fighting equipment including all fire fighting wearing apparel after the incident.

FIRE AND EXPLOSION HAZARD:

This product, when ignited, will burn with the evolution of noxious chlorine containing gases. Decomposition requires a continuous heat source. Once the heat source is removed, decomposition will not continue. In addition, when in contact with another combustible material, this product will increase the burning rate of the combustible material.

Nitrogen trichloride can be generated slowly by the reaction of small quantities of water with a high concentration of this product. Nitrogen trichloride can present an explosion hazard.

Immediately after a fire has been extinguished, check for wet or damp material. Any spilled material from burned or broken containers should be assumed contaminated. Neutralize to a non-oxidizing material for safe disposal. Do not attempt to re-close broken drums, even for movement to the disposal area. They should be left open to disperse any nitrogen trichloride that may form.

Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. If the plastic liner of the drum is damaged or the material is damp, the material should be neutralized to a non-oxidizing material for safe disposal.

Bulging containers require extreme care. Contact the fire department.

5. FIRE FIGHTING MEASURES (Continued)

Material glows on ignition and burns without a visible flame. Contact of molten material with limited amounts of water may result in steam explosion.

SENSITIVITY TO MECHANICAL IMPACT:

Not sensitive.

SENSITIVITY TO STATIC DISCHARGE:

Not sensitive.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Follow protective measures provided under Personal Protection in Section 8.

ENVIRONMENTAL PRECAUTIONS:

Contain spill with dike to prevent entry into sewers or waterways.

METHODS FOR CLEANING UP:

Contain spilled material. Any spillage should be cleaned up as soon as possible. DO NOT add water to spilled material. Using clean, dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean, dry containers for disposal. DO NOT use floor sweeping compounds to clean up spills. DO NOT close drums containing wet or damp material. They should be left open to disperse any nitrogen trichloride that may form. DO NOT transport wet or damp material.

Revised

7. HANDLING AND STORAGE

HANDLING:

Do not get in eyes, on skin or clothing.

Avoid breathing airborne particulates; wear respiratory protection when exposure is possible.

Vapor space in a closed container may contain a slight amount of chlorine gas and compounds from decomposition of the product.

Wear goggles or face shield and rubber gloves when handling.

Wash thoroughly with soap and water after handling.

Wash contaminated clothing before reuse.

7. HANDLING AND STORAGE (Continued)

SPECIAL MIXING AND HANDLING INSTRUCTIONS:

Mix only with water. Use clean dry utensils. DO NOT add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter, or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases, and possible generation of fire and explosion.

Vapor space in a closed container may contain a slight amount of chlorine gas and other chlorine containing compounds from decomposition of the product. Exposure to chlorine gas may cause burning of the eyes with tearing; burning of the nose and mouth with runny nose; and irritation of the linings of the entire respiratory tract with coughing, a choking sensation, substernal pain, vomiting, nausea, headache, dizziness and fainting. The onset of severe respiratory symptoms following exposure to chlorine, including pulmonary edema and pneumonitis, may be delayed.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

FOR INDUSTRIAL USE ONLY, FOR REPACKAGING OR FORMULATION AS A DISINFECTANT, SANITIZER, BACTERICIDE, FUNGICIDE OR ALGICIDE. Repackagers or formulators must obtain their own EPA Registration Number to legally market this product for these uses.

STORAGE:

Store in original container and in a dry area where temperatures do not exceed 52°C (125°F) for 24 hours. Retie polyethylene liner after each use and keep container tightly closed. Do not allow water to get into container. Keep container off wet floors. Do not contaminate water, food or feed by storage or disposal.

Revised

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Handle product in a well ventilated area.

If product is handled in an open system, the use of process enclosures, local exhaust ventilation, and/or other engineering controls should be considered to control airborne levels to below recommended exposure limits, or below acceptable levels where there are no limits.

PERSONAL PROTECTION

RESPIRATORY:

A NIOSH approved respirator with an organic vapor acid gas cartridge with dust, fume and mist filter 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

A respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant use of a respirator.

EYE/FACE:

Wear chemical safety goggles. (ANSI Z87.1)

SKIN:

Wear chemical resistant gloves such as rubber, neoprene or vinyl.

Launder contaminated clothing and clean protective equipment before reuse.

OTHER:

Emergency shower and eyewash facility should be in close proximity (ANSI Z358.1).

Revised

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White crystalline solid, slight chlorine odor

Odor Threshold: Not determined

Specific Gravity (Water=1): Not determined

Vapor Pressure: Not determined

Vapor Density (Air=1): Not determined

Density: 63-66 lbs/cu.ft. (loose bulk)

Evaporation Rate: Not determined

% Volatiles by Wt: Not determined

Boiling Point: Not determined

Freezing Point: Not determined

Melting Point: 225-230°C (437-446°F) (decomposes)

Solubility in Water (% by wt.): 1.2g/100g @ 25°C

pH: 3-3.5 (1% solution @ 25°C)

Octanol/Water Partition Coefficient: Not determined

Thermal Decomposition Temperature: 225-230°C (437-446°F) (decomposes)

Other: Not applicable

VOC (% by wt;g/l): Not determined

Revised

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

__X__ STABLE _____ UNSTABLE

REACTS WITH:

_____ AIR	_____ OXIDIZERS	_____ METALS
__X__ WATER	__X__ ACIDS	_____ OTHER
_____ HEAT	__X__ ALKALIS	_____ NONE

HAZARDOUS POLYMERIZATION:

_____ OCCURS __X__ WILL NOT OCCUR

COMMENTS:

NFPA Oxidizer Classification 1

This material is a strong oxidizing agent. The preparation of concentrated solutions or slurries is not recommended. Avoid contact with water on concentrated material in the container. Also avoid contact with easily oxidizable organic material; ammonia, urea, or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; calcium hypochlorite; alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS:

Chlorine containing gases can be produced.

Revised

11. TOXICOLOGICAL INFORMATION

87-90-1 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tri-

This material contains 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-trichloro- at levels that may produce a biological effect. Minimize contact. This substance is moderately toxic by ingestion. It is extremely irritating to the eyes and skin.

For further information call or write the address shown on page 1 of the MSDS.

Revised

12. ECOLOGICAL INFORMATION

87-90-1 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tri-

TOXICITY: This material has been determined to be highly toxic to freshwater fish and invertebrates in acute toxicity tests.

PERSISTENCE: This material will readily biodegrade.

BIOACCUMULATION: This material is believed to be unlikely to bioaccumulate.

For further information call or write the address shown on page 1 of the MSDS.

Revised

13. DISPOSAL CONSIDERATIONS

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Product disposal: 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. Do not transport damp or wet material. Neutralize materials to a non-oxidizing state for safe disposal.

CONTAINER DISPOSAL:

FIBER DRUM: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Remove and triple rinse polyethylene liner. Then dispose of liner in a sanitary landifll or by incineration as allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner.

METAL CONTAINER: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

PLASTIC DRUM: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

BULK BAG OR PLASTIC BAG: Completely empty bag into application equipment. Remove and triple rinse polyethylene liner. Dispose of empty bag and liner in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not reuse bag.

BULK BIN: Return empty bulk bin for reuse. Do not vacuum, wash, or clean inside of bin.

Revised

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Trichloroisocyanuric Acid, Dry

DOT HAZARD CLASS: 5.1

DOT IDENTIFICATION N0: UN2468

DOT PACKING GROUP: II

DOT HAZARDOUS SUBSTANCE: Not Applicable

DOT MARINE POLLUTANT(S): Not Applicable

ADDITIONAL DESCRIPTION REQUIREMENT: Not Applicable

Revised

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

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, material 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 Material Safety Data Sheet available to your employees.

TSCA:

All components of this product that are required to be on the TSCA inventory are listed on the inventory.

SARA/TITLE III HAZARD CATEGORIES:

If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR 370. Please consult those regulations for details.

Immediate(Acute) Health:	YES	Reactive Hazard	YES
Delayed(Chronic) Health:	NO	Sudden Release of Pressure	NO
Fire Hazard:	YES		

HMIS HAZARD RATINGS:

HEALTH HAZARD: 3 FIRE HAZARD: 1 REACTIVITY: 2

STATE REGULATIONS:

See Section 2. COMPOSITION/INFORMATION ON INGREDIENTS list legend for applicable state regulation.

INTERNATIONAL REGULATIONS:

Consult the regulations of the importing country.

CANADA:

WHMIS Hazard Class: C, D2B

16. OTHER INFORMATION

For additional non-emergency health, safety or environmental information telephone (972) 404-2076 or write to:

Occidental Chemical Corporation
Product Stewardship Department
5005 LBJ Freeway
P.O. Box 809050
Dallas, Texas 75380

16. OTHER INFORMATION (Continued)

MSDS LEGEND:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstracts Service Registry Number

CEILING = Ceiling Limit (15 Minutes)

CEL = Corporate Exposure Limit

OSHA = Occupational Safety and Health Administration

PEL = Permissible Exposure Limit (OSHA)

STEL = Short Term Exposure Limit (15 Minutes)

TDG = Transportation of Dangerous Goods (Canada)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average (8 Hours)

WHMIS = Worker Hazardous Materials Information System (Canada)

* = See Section 3 Hazards Identification - Repeated Exposure(Chronic) Information

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Revised

17. WARNING LABEL INFORMATION

This product is registered with the United States Environmental Protection Agency (EPA) as a pesticide, as required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is shipped under a FIFRA approved product label. It is a violation of Federal law to use this product for pesticidal applications in a manner inconsistent with the FIFRA labeling.

Repackers or formulators must obtain their own EPA registration and FIFRA approved label to legally market this product for pesticidal applications.

This product may be used by manufacturers of non-pesticidal products provided no pesticidal claim is made.