


**MATERIAL SAFETY
DATA SHEET**

24-HOUR EMERGENCY TELEPHONE (606) 324-1133

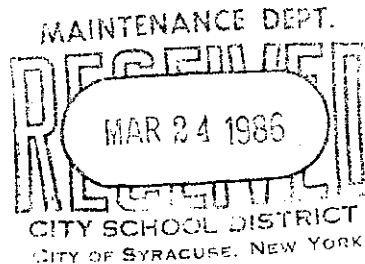
 ENVIRONMENTAL and
OCCUPATIONAL SAFETY DEPARTMENT

R. H. Toeniskoetter, Manager

*Swimming
Pool*

 CITY OF SYRACUSE, SCHOOL DIST
A/P 409 W. GENESEE STREET
SYRACUSE, NY 13202

ATTN: PLANT MGR./SAFETY DIR.



DEAR CUSTOMER:

YOU ARE PROBABLY AWARE OF RECENT DEVELOPMENTS REGARDING WORKER "RIGHT-TO-KNOW" LAWS AND THE OSHA HAZARD COMMUNICATION STANDARD. WHILE THESE LAWS AND THE OSHA STANDARD HAVE NUMEROUS REQUIREMENTS, THE DEVELOPMENT OF A MATERIAL SAFETY DATA SHEET AND ITS DISSEMINATION TO THE PURCHASER OF THE CHEMICAL PRODUCT ARE AMONG THE PRINCIPAL MEANS OF ACHIEVING AN EFFECTIVE HAZARD COMMUNICATION PROGRAM AND OF SATISFYING THE "RIGHT-TO-KNOW" NEED.

ASHLAND CHEMICAL COMPANY PROVIDES ITS CUSTOMERS WITH MATERIAL SAFETY DATA SHEETS ON THE PRODUCTS PURCHASED, USING A COMPUTERIZED PROGRAM WHICH PROVIDES AUTOMATIC GENERATION AND MAILING WHEN A FIRST TIME SALES ORDER FOR A PRODUCT IS RECEIVED. IF A MATERIAL SAFETY DATA SHEET IS REVISED, CUSTOMERS AUTOMATICALLY RECEIVE AN UPDATED VERSION IF THE PRODUCT HAS BEEN PURCHASED IN THE PREVIOUS TWELVE MONTHS.

WHEN GENERATED AND MAILED THROUGH OUR COMPUTERIZED PROGRAM, ASHLAND'S MATERIAL SAFETY DATA SHEET IS ADDRESSED TO THE ATTENTION OF THE PLANT MANAGER/SAFETY DIRECTOR AT THE BILLING LOCATION ON THE SALES ORDER. FOR THE MSDS TO SERVE ITS PURPOSE AS AN EFFECTIVE MEANS OF HAZARD COMMUNICATION, THE INFORMATION CONTAINED THEREIN MUST BE PASSED ALONG TO ALL THOSE WHO HANDLE OR USE THE PRODUCT AND/OR ARE INVOLVED WITH THE DESIGN, IMPLEMENTATION OR CONTROL OF OPERATIONS INVOLVING THE PRODUCT. WE STRONGLY URGE YOU TO FORWARD THE MSDS TO ALL PARTIES WHO HAVE A NEED FOR THE INFORMATION CONTAINED THEREIN.

WHEN AN ASHLAND CHEMICAL PRODUCT IS RESOLD IN THE ORIGINAL PACKAGE WITH AN ASHLAND LABEL, THE RESELLER HAS THE RESPONSIBILITY FOR ENSURING THAT THE ASHLAND MATERIAL SAFETY DATA SHEET IS PROVIDED TO ITS PURCHASER. IF YOU USE ASHLAND PRODUCTS IN YOUR FORMULATIONS, THE HEALTH AND SAFETY INFORMATION CONTAINED IN THE ASHLAND MSDS MAY BE UTILIZED IN THE HAZARD EVALUATION OF YOUR PRODUCT.

ASHLAND CHEMICAL COMPANY IS COMMITTED TO PROVIDING ACCURATE AND ADEQUATE HEALTH AND SAFETY INFORMATION ON THE HAZARDOUS PRODUCTS THAT WE PRODUCE OR DISTRIBUTE. WE APPRECIATE YOUR CONTINUED BUSINESS AND ASSURE YOU THAT WE WILL TAKE WHATEVER STEPS ARE NECESSARY TO ENSURE THAT THE INFORMATION WE PROVIDE IS UPDATED AS NEEDED.


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24-HOUR EMERGENCY TELEPHONE (606) 324-1133

DEFINITIONS

THIS DEFINITION PAGE IS INTENDED FOR USE WITH MATERIAL SAFETY DATA SHEETS SUPPLIED BY ASHLAND OIL, INC. AND ITS DIVISIONS. RECIPIENTS OF THESE DATA SHEETS SHOULD CONSULT THE OSHA SAFETY AND HEALTH STANDARDS (29 CFR 1910), PARTICULARLY SUBPART G - OCCUPATIONAL HEALTH AND ENVIRONMENTAL CONTROL, AND SUBPART I - PERSONAL PROTECTIVE EQUIPMENT, FOR GENERAL GUIDANCE ON CONTROL OF POTENTIAL OCCUPATIONAL HEALTH AND SAFETY HAZARDS.

SECTION I
PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: CHEMICAL FAMILY OR PRODUCT DESCRIPTION.

DOT HAZARD CLASSIFICATION: PRODUCT MEETS DOT CRITERIA FOR HAZARDS LISTED.

SECTION II
COMPONENTS

COMPONENTS ARE LISTED IN THIS SECTION IF THEY PRESENT A PHYSICAL OR HEALTH HAZARD AND ARE PRESENT AT OR ABOVE 1% IN THE MIXTURE. COMPONENTS IDENTIFIED AS CARCINOGENS BY NTP, IARC AND OSHA ARE LISTED AND FOOTNOTED IF THEY ARE PRESENT AT OR ABOVE 0.1% IN THE MIXTURE. OTHER COMPONENTS MAY BE LISTED IF DEEMED APPROPRIATE.

IDENTITIES OF COMPONENTS LISTED GENERALLY ARE DECLARED TRADE SECRET.

EXPOSURE RECOMMENDATIONS ARE FOR COMPONENTS. OSHA PERMISSIBLE EXPOSURE LIMITS (PELS) AND AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) THRESHOLD LIMIT VALUES (TLVs) APPEAR ON THE LINE WITH THE COMPONENT IDENTIFICATION. OTHER RECOMMENDATIONS APPEAR AS FOOTNOTES.

SECTION III
PHYSICAL DATA

BOILING POINT: OF PRODUCT IF KNOWN. THE LOWEST VALUE OF THE COMPONENTS IS LISTED FOR MIXTURES.

VAPOR PRESSURE: OF PRODUCT IF KNOWN. THE HIGHEST VALUE OF THE COMPONENTS IS LISTED FOR MIXTURES.

SPECIFIC VAPOR DENSITY: COMPARED TO AIR = 1. IF SPECIFIC VAPOR DENSITY OF PRODUCT IS NOT KNOWN, THE VALUE IS EXPRESSED AS LIGHTER OR HEAVIER THAN AIR.

SPECIFIC GRAVITY: COMPARED TO WATER = 1. IF SPECIFIC GRAVITY OF PRODUCT IS NOT KNOWN, THE VALUE IS EXPRESSED AS LESS THAN OR GREATER THAN WATER.

PH: IF APPLICABLE.

PERCENT VOLATILES: PERCENTAGE OF MATERIAL WITH INITIAL BOILING POINT BELOW 425 DEGREES FAHRENHEIT.

EVAPORATION RATE: INDICATED AS FASTER OR SLOWER THAN ETHYL ETHER, UNLESS OTHERWISE STATED.

SECTION IV
FIRE AND EXPLOSION INFORMATION

FLASH POINT: METHOD IDENTIFIED.

EXPLOSION LIMITS: FOR PRODUCT IF KNOWN. THE LOWEST VALUE OF THE COMPONENTS IS LISTED FOR MIXTURES.

HAZARDOUS DECOMPOSITION PRODUCTS: KNOWN OR EXPECTED HAZARDOUS PRODUCTS RESULTING FROM HEATING, BURNING, OR OTHER REACTIONS.

EXTINGUISHING MEDIA: FOLLOWING NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA.

ADDITIONAL COMMENTS

CONTAINERS SHOULD BE EITHER RECONDITIONED BY CERTIFIED FIRMS OR PROPERLY DISPOSED OF BY APPROVED FIRMS. DISPOSAL OF CONTAINERS SHOULD BE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS. "EMPTY" DRUMS SHOULD NOT BE GIVEN TO INDIVIDUALS. SERIOUS ACCIDENTS HAVE RESULTED FROM THE MISUSE OF "EMPTIED" CONTAINERS (DRUMS, PAILS, ETC.). REFER TO SECTIONS IV AND IX.

SECTION IV (CONT.)

FIREFIGHTING PROCEDURES: MINIMUM EQUIPMENT TO PROTECT FIREFIGHTERS FROM TOXIC PRODUCTS OF VAPORIZATION, COMBUSTION OR DECOMPOSITION IN FIRE SITUATIONS. OTHER FIREFIGHTING HAZARDS MAY ALSO BE INDICATED.

SPECIAL FIRE AND EXPLOSION HAZARDS: STATES HAZARDS NOT COVERED BY OTHER SECTIONS.

NFPA CODES: HAZARD RATINGS ASSIGNED BY THE NATIONAL FIRE PROTECTION ASSOCIATION.

SECTION V
HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LIMIT: FOR PRODUCT.

THRESHOLD LIMIT VALUE: FOR PRODUCT.

EFFECTS OF ACUTE OVEREXPOSURE: POTENTIAL LOCAL AND SYSTEMIC EFFECTS DUE TO SINGLE OR SHORT TERM OVEREXPOSURE TO THE EYES AND SKIN OR THROUGH INHALATION OR INGESTION.

EFFECTS OF CHRONIC OVEREXPOSURE: POTENTIAL LOCAL AND SYSTEMIC EFFECTS DUE TO REPEATED OR LONG TERM OVEREXPOSURE TO THE EYES AND SKIN OR THROUGH INHALATION OR INGESTION.

FIRST AID: PROCEDURES TO BE FOLLOWED WHEN DEALING WITH ACCIDENTAL OVEREXPOSURES.

PRIMARY ROUTE OF ENTRY: BASED ON PROPERTIES AND EXPECTED USE.

SECTION VI
REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CONDITIONS TO AVOID TO PREVENT HAZARDOUS POLYMERIZATION RESULTING IN A LARGE RELEASE OF ENERGY.

STABILITY: CONDITIONS TO AVOID TO PREVENT HAZARDOUS OR VIOLENT DECOMPOSITION.

INCOMPATIBILITY: MATERIALS AND CONDITIONS TO AVOID TO PREVENT HAZARDOUS REACTIONS.

SECTION VII
SPILL OR LEAK PROCEDURES

REASONABLE PRECAUTIONS TO BE TAKEN AND METHODS OF CONTAINMENT, CLEAN-UP AND DISPOSAL. CONSULT FEDERAL, STATE AND LOCAL REGULATIONS FOR ACCEPTED PROCEDURES AND ANY REPORTING OR NOTIFICATION REQUIREMENTS.

SECTION VIII
PROTECTIVE EQUIPMENT TO BE USED

PROTECTIVE EQUIPMENT WHICH MAY BE NEEDED WHEN HANDLING THE PRODUCT.

SECTION IX
SPECIAL PRECAUTIONS OR OTHER COMMENTS

COVERS ANY RELEVANT POINTS NOT PREVIOUSLY MENTIONED.



MATERIAL SAFETY DATA SHEET

P. O. BOX 2219, COLUMBUS, OHIO 43216 • (614) 889-3333
24-HOUR EMERGENCY TELEPHONE (606) 324-1133

003140

CAL HYPOCHLORITE GRAN 100# DR

PAGE: 1

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: CAL HYPOCHLORITE GRAN 100# DR
CAS NUMBER: 7778 54 3

CITY OF SYRACUSE, SCHOOL DIST
A/P 409 W. GENESEE STREET
SYRACUSE, NY 13202

05 50 075 6538930-
DATA SHEET NO: 0031825-001
LATEST REVISION DATE: 06/85-85168
PRODUCT: 3095500
INVOICE: 695259
INVOICE DATE: 11/11/85
TO: NOTTINGHAM H. S.
3100 E. GENESEE STREET
SYRACUSE, NY 13202

ATTN: PLANT MGR./SAFETY DIR.

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: SALTS
HAZARD CLASSIFICATION: (07) OXIDIZER (173.151)

SECTION II-HAZARDOUS COMPONENTS

Table with 5 columns: INGREDIENT, % (BY WT), PEL, TLV, NOTE. Row 1: CALCIUM HYPOCHLORITE, 100, (1): PEL/TLV NOT ESTABLISHED FOR THIS MATERIAL

SECTION III-PHYSICAL DATA

Table with 3 columns: PROPERTY, REFINEMENT, MEASUREMENT. Rows: INITIAL BOILING POINT, VAPOR PRESSURE, VAPOR DENSITY, SPECIFIC GRAVITY, PERCENT VOLATILES, EVAPORATION RATE

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT NOT APPLICABLE
EXPLOSIVE LIMIT NOT APPLICABLE
EXTINGUISHING MEDIA: WATER FOG
HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS: , CHLORINE, ETC.
SPECIAL FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.
UNUSUAL FIRE & EXPLOSION HAZARDS: DECOMPOSITION CAN RELEASE OXYGEN WHICH SUPPORTS COMBUSTION AND REDUCES THE EFFECTIVENESS OF SUFFOCATION TYPE FIRE EXTINGUISHERS.
THIS MATERIAL IS A POWERFUL OXIDIZER. CONTACT WITH COMBUSTIBLE MATERIALS CAN RESULT IN FIRE OR EXPLOSION.
NFPA CODES: HEALTH- 1 FLAMMABILITY- 0 REACTIVITY- 2
OXIDIZING MATERIAL

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: NOT ESTABLISHED.
EFFECTS OF OVEREXPOSURE: FOR PRODUCT
EYES - CAUSES SEVERE DAMAGE.
SKIN - CAUSES BURNS.
BREATHING - OF DUST CAN CAUSE DAMAGE TO NASAL AND RESPIRATORY PASSAGES.
SWALLOWING - RESULTS IN SEVERE DAMAGE TO MUCOUS MEMBRANES AND DEEP TISSUES, CAN RESULT IN DEATH ON PENETRATION TO VITAL AREAS.
FIRST AID:
IF ON SKIN: IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING. LAUNDRER CONTAMINATED CLOTHING BEFORE RE-USE.
IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY. GET MEDICAL ATTENTION.
IF SWALLOWED: DO NOT INDUCE VOMITING. VOMITING WILL CAUSE FURTHER DAMAGE TO


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003140

CAL HYPOCHLORITE GRAN 100# DR

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 SECTION V-HEALTH HAZARD DATA (CONTINUED)

THE THROAT. DILUTE BY GIVING WATER. GIVE MILK OF MAGNESIA. KEEP WARM,
QUIET. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: REMOVE INDIVIDUAL TO FRESH AIR.

 PRIMARY ROUTE(S) OF ENTRY:

SKIN CONTACT

 SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH: , EXCESSIVE HEAT, COMBUSTIBLE MATERIALS

 SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: VENTILATE AREA.
SWEEP UP MATERIAL ONTO PAPER.

LARGE SPILL: PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM
AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. SHOVEL MATERIAL INTO
CONTAINERS. THOROUGHLY SWEEP AREA OF SPILL TO CLEAN UP ANY RESIDUAL
MATERIAL.

 WASTE DISPOSAL METHOD:

SMALL SPILL: FLUSH DOWN DRAIN WITH LARGE AMOUNTS OF WATER IN ACCORDANCE WITH
APPLICABLE REGULATIONS.

LARGE SPILL: DEPOSIT IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL
REGULATIONS.

 SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF OVEREXPOSURE HAS BEEN DETERMINED OR DOCUMENTED, A
NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE
OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER
NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY
EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE
IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: NOT REQUIRED UNDER NORMAL CONDITIONS OF USE.

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS: , NEOPRENE

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE
ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES.
(CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: NORMAL WORK CLOTHING COVERING ARMS AND LEGS.

 SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED
CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL
HAZARD PRECAUTIONS GIVEN IN THIS DATASHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT
WARRANTED TO BE WHETHER ORIGINATING WITH ASHLAND OR NOT. RECIPIENTS ARE
ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT,
APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.