



chemists helping chemists in research & industry

aldrich chemical co., inc.

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DATE: 10/08/92
CUST#: 938609
PO#: 72761

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

IDENTIFICATION

PRODUCT #: 31698-9
CAS #: 7722-84-1
MF: H2O2

NAME: HYDROGEN PEROXIDE, 30-32 WT. % SOLUTION
IN WATER, 99.999%, SEMICONDUCTOR GRADE

SYNONYMS

ALBONE 35 * ALBONE 50 * ALBONE 70 * ALBONE 35CG * ALBONE 50CG *
ALBONE 70CG * HYDROGEN PEROXIDE, SOLUTION, 30% * HYDROGEN PEROXIDE
SOLUTION (8% TO 40% PEROXIDE) (UN1966) (DOT) * INTEROX * KASTONE *
PERONE 30 * PERONE 35 * PERONE 50 * UN 2014 (DOT) *

TOXICITY HAZARDS

RTECS NO: MX0899000

HYDROGEN PEROXIDE, 30%

TOXICITY DATA

ORL-WMN LDLO: 2626 UG/KG

SMEZA5 17(1), 53, 74

ORL-MAN LDLO: 1429 MG/KG

SMEZA5 17(1), 53, 74

IVN-RAT LD50: >50 GM/KG

HYHPDO 5, 39, 80

REVIEWS, STANDARDS, AND REGULATIONS

IARC CANCER REVIEW: ANIMAL LIMITED EVIDENCE IMEMDT 36, 285, 85

IARC CANCER REVIEW: GROUP 3 IMSUOL 7, 56, 87

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTRATION

FEFAC 54, 4383, 89

MSHA STANDARD-AIR: TWA 1 PPM (1.4 MG/M3) DTLVS* 3, 131, 71

NOHS 1974: HZD 38605; NIS 168; TNF 19597; NOS 83; TNE 422227

NOES 1983: HZD 38605; NIS 171; TNF 22930; NOS 142; TNE 1006752; TFE
727702

EPA GENETOX PROGRAM 1988, POSITIVE: N CRASSA-REVERSION; E COLI POLA
WITHOUT S9

EPA GENETOX PROGRAM 1988, POSITIVE: IN VITRO UDS-HUMAN FIBROBLAST; S
POMRE-REVERSION

EPA GENETOX PROGRAM 1988, INCONCLUSIVE: HISTIDINE REVERSION-AMES TEST

EPA TSCA CHEMICAL INVENTORY, JUNE 1990

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JULY 1992

TARGET ORGAN DATA

BEHAVIORAL (COMA)

LUNGS, THORAX OR RESPIRATION (CYANOSIS)

GASTROINTESTINAL (CHANGES IN STRUCTURE OR FUNCTION OF ESOPHAGUS)

GASTROINTESTINAL (NAUSEA OR VOMITING)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS)
DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

HEALTH HAZARD DATA

ACUTE EFFECTS

HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.

CONTINUED ON NEXT PAGE

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HEALTH HAZARD DATA

MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES AND SKIN. INHALATION MAY BE FATAL AS A RESULT OF SPASM, INFLAMMATION AND EDEMA OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA. SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND VOMITING.

CHRONIC EFFECTS

LABORATORY EXPERIMENTS HAVE SHOWN MUTAGENIC EFFECTS.

FIRST AID

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.

ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.

CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

DISCARD CONTAMINATED SHOES.

PHYSICAL DATA

SPECIFIC GRAVITY: 1.110

VAPOR DENSITY: 1

VAPOR PRESSURE: 23.3 MM @ 30 C

APPEARANCE AND ODOR

CLEAR COLORLESS LIQUID

FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT: NONE

EXTINGUISHING MEDIA

WATER SPRAY.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

STRONG OXIDIZER.

CONTINUED ON NEXT PAGE

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FIRE AND EXPLOSION HAZARD DATA

CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

REACTIVITY DATA

INCOMPATIBILITIES

REACTS WITH:
ORGANIC MATERIALS
REDUCING AGENTS
BRASS
COPPER, COPPER ALLOYS
GALVANIZED IRON
ZINC
NICKEL
LEAD
RUST
FINELY POWDERED METALS
IRON AND IRON SALTS
SENSITIVE TO LIGHT

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
OXYGEN
WATER

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR
DISPOSAL.
FLUSH SPILL AREA WITH COPIOUS AMOUNTS OF WATER.

WASTE DISPOSAL METHOD

CAUTIOUSLY ACIDIFY A 3% SOLUTION OR A SUSPENSION OF THE MATERIAL TO
PH 2 WITH SULFURIC ACID. GRADUALLY ADD A 50% EXCESS OF AQUEOUS SODIUM
BISULFITE WITH STIRRING AT ROOM TEMPERATURE. AN INCREASE IN TEMPERA-
TURE INDICATES THAT A REACTION IS TAKING PLACE. IF NO REACTION IS
OBSERVED ON THE ADDITION OF ABOUT 10% OF THE SODIUM BISULFITE SOLUTION
INITIATE IT BY CAUTIOUSLY ADDING MORE ACID. IF MANGANESE, CHROMIUM,

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SPILL OR LEAK PROCEDURES

OR MOLYBDENUM ARE PRESENT ADJUST THE PH OF THE SOLUTION TO 7 AND TREAT WITH SULFIDE TO PRECIPITATE FOR BURIAL AS HAZARDOUS WASTE. DESTROY EXCESS SULFIDE, NEUTRALIZE AND FLUSH THE SOLUTION DOWN THE DRAIN.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
USE ONLY IN A CHEMICAL FUME HOOD.
SAFETY SHOWER AND EYE BATH.
FACESHIELD (8-INCH MINIMUM).
AVOID CONTACT AND INHALATION.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
WASH THOROUGHLY AFTER HANDLING.
CORROSIVE.
POSSIBLE MUTAGEN.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM COMBUSTIBLE MATERIALS, HEAT, SPARKS, AND OPEN FLAME.
PROTECT FROM LIGHT.
REFRIGERATE.
MAY DEVELOP PRESSURE.

LABEL PRECAUTIONARY STATEMENTS

OXIDIZING
CORROSIVE
CONTACT WITH COMBUSTIBLE MATERIAL MAY CAUSE FIRE.
CAUSES BURNS.
POSSIBLE RISK OF IRREVERSIBLE EFFECTS.
POSSIBLE MUTAGEN.
PROTECT FROM LIGHT.
KEEP AWAY FROM COMBUSTIBLE MATERIAL.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

ADDITIONAL PRECAUTIONS AND COMMENTS

ADDITIONAL INFORMATION

INCOMPATIBLE WITH: CHROMIUM, MANGANESE, SILVER, PLATINUM, PALLADIUM.

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FORMS POTENTIALLY EXPLOSIVE COMPOUNDS WITH KETONES, ETHERS, CARBOXYLIC ACID ANHYDRIDES AND ALCOHOLS. MAY REACT EXPLOSIVELY UPON MIXING WITH HYDRAZINE, ANILINE AND GLYCERINE. SODIUM BORATE, UREA, SODIUM CARBONATE, TRIETHYLAMINE, SODIUM FLUORIDE AND SODIUM PYROPHOSPHATE FORM ADDITION COMPOUNDS ANALOGOUS TO HYDRATES WITH HYDROGEN PEROXIDE. THESE COMPOUNDS CAN CRYSTALLIZE OUT AND REPRESENT A FORM OF CONCENTRATED HYDROGEN PEROXIDE THAT CAN REACT VIOLENTLY BY GRINDING OR HEATING WITH OXIDIZABLE MATERIALS.

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Date 6-23-87

The Material Safety Data Sheet for Isotonic Buffered Saline
catalog number B3157-11A manufactured by Harleco
has not been provided to us at this time.

A copy of your request is being held in a pending file.
As soon as the MSDS information is available to us it will
be forwarded to you.

We apologize for any inconvenience this may cause, and would
like you to know we are actively working to gather this
MSDS information from the manufacturer.

Sincerely,

Sois
MSDS Clerk

Any additional questions please call (312) 689-8410 Ext. (2810)