

Material Safety Data Sheet

(Orenco ADH-019)

ADH100 (NON-FLAM)

PRODUCT NAME: ADH100
PRODUCT CODE: ADH100

HMIS CODES: H F R P
3*0 1 H

SECTION 1 - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: ORENCO SYSTEMS, INC.
814 AIRWAY AVENUE
SUTHERLIN, OR 97479

EMERGENCY PHONE: (800) 535-5053
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NAME OF PREPARER: MSDS/COMPLIANCE DEPT.

SECTION 2 - HAZARDOUS INGREDIENTS/SARA III INFORMATION

REPORTABLE COMPONENTS	VAPOR PRESSURE CAS NUMBER	WEIGHT mm Hg @ TEMP	PERCENT
*TETRACHLOROETHYLENE	127-18-4 13	68 69	

OSHA PEL: TWA-100 ppm; CEILING = 200 ppm
ACGLH TLV: TWA=25 ppm (170 mg/m3); STEL=100 ppm (685 mg/m3)

Indicates a toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

PROPOSITION 65 STATEMENT: This product contains a chemical known to the state of California to cause cancer.
DOT CLASS: SMALL PKG., CONSUMER COMMODITY, ORM-D; I GALLON & LARGER - TETRACHLOROETHYLENE MIXTURE, 6. 1, UN 1897, PG 111.

SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING RANGE: >250 DEGREES F
VAPOR DENSITY: HEAVIER THAN AIR
EVAPORATION RATE: SLOWER THAN ETHER
APPEARANCE AND ODOR: VISCOUS LIQUID WITH ETHER-LIKE ODOR

SPECIFIC GRAVITY (H2O=1): 1.35
MATERIAL VOC: 7.77 LB/GL
SOLUBILITY IN WATER: NEGLIGIBLE

VOC calculations are based on the federal EPA definition of volatile organic compound under the Clean Air Act. State and local air quality authorities may have more stringent regulation.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: NONE
FLAMMABLE LIMITS IN AIR BY VOLUME - LOWER: N/A
METHOD USED: N/A
UPPER: N/A

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES

1. WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA). 11. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS

PRODUCT IS NON-FLAMMABLE AND NON-EXPLOSIVE UNDER NORMAL CONDITIONS OF USE. AT HIGH TEMPERATURES, PRODUCT DECOMPOSES TO GIVE OFF HYDROCHLORIC ACID AS GAS PLUS OTHER TOXIC AND IRRITATING VAPORS SUCH AS PHOSGENE AND CHLORINE. IF STORAGE CONTAINERS ARE EXPOSED TO EXCESSIVE HEAT, OVER-PRESSURIZATION CAN RESULT IN CONTAINER RUPTURE.

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SECTION 5 - REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: AVOID EXTREME HEAT, FLAME OR SPARKS.

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ACIDS AND OXIDIZING MATERIALS. AVOID MIXING WITH CAUSTIC SODA OR POTASH.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: I. TOXIC/IRRITATING GASES AND FUMES. 11. HYDROGEN CHLORIDE, CO₂, SIMPLE HYDROCARBONS, PHOSGENE, AND CHLORINE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION 6 - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

DIZZINESS MAY OCCUR AT 200 PPM; PROGRESSIVELY HIGHER LEVELS CAN CAUSE IRRITATION OF THE RESPIRATORY TRACT, DRUNKENNESS, NAUSEA, UNCOORDINATION, UNCONSCIOUSNESS AND EVEN ASPHYXIATION IN CONFINED, POORLY VENTILATED AREAS. OVEREXPOSURE CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

EYES: PRODUCT IN DYDS CAN RESULT IN DISCOMFORT, PAIN AND IRRITATION. VAPORS MAY IRRITATE THE EYES AT ABOUT 100 PPM. SKIN: IRRITATION CAN DEVELOP FOLLOWING REPEATED AND/OR PROLONGED CONTACT AND MAY CAUSE DRYING OR FLAKING OF SKIN.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

A SINGLE PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN MATERIAL BEING ABSORBED THROUGH THE SKIN IN HARMFUL AMOUNTS. THE LD₅₀ OF TETRACHLOROETHYLENE FOR SKIN ABSORPTION IN RABBITS IS >10,000 mg/kg.

INDIGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SINGLE DOSE ORAL TOXICITY IS LOW. INGESTION MAY RESULT IN IRRITATION OF THE MOUTH AND GASTROINTESTINAL TRACT ALONG WITH OTHER EFFECTS AS LISTED ABOVE FOR INHALATION. VOMITING AND SUBSEQUENT ASPIRATION INTO THE LUNGS MAY LEAD TO INJURY OF OTHER BODY SYSTEMS.

HEALTH HAZARDS (ACUTE AND CHRONIC)

TETRACHLOROETHYLENE HAS BEEN SHOWN TO INCREASE RATE OF SPONTANEOUSLY OCCURRING MALIGNANT TUMORS IN CERTAIN LAB RATS AND MICE. OTHER LONG TERM INHALATION STUDIES IN RATS FAILED TO SHOW TUMORIGENIC RESPONSE. EPIDEMIOLOGY STUDIES ARE LIMITED AND HAVE NOT ESTABLISHED AN ASSOCIATION BETWEEN TETRACHLOROETHYLENE EXPOSURE AND CANCER. DID NOT CAUSE BIRTH DEFECTS IN ANIMALS, THEREFORE, BIRTH DEFECTS UNLIKELY. PROLONGED EXPOSURE ABOVE OSHA PERMISSIBLE LIMITS MAY RESULT IN LIVER AND KIDNEY DAMAGE.

CARCINOGENICITY:

NTP CARCINOGEN: Yes **IARC MONOGRAPHS:** OSHA REGULATED: No

TETRACHLOROCETHYLENE IS LISTED AS POTENTIAL CARCINOGEN BY IARC & NTP. RESULTS OF IN VITRO MUTAGENICITY TESTS HAVE BEEN NEGATIVE. PRUDENT HANDLING PRACTICES SHOULD BE FOLLOWED TO MINIMIZE HUMAN EXPOSURE.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

PRE-EXISTING EYE, SKIN, AND LUNG CONDITIONS.

EMERGENCY AND FIRST AID PROCEDURES

EYES: FLUSH WITH WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL CARE IF IRRITATION PERSISTS OR DEVELOPS. SKIN: WIPE FROM SKIN AND WASH WITH SOAP AND WATER. IF IRRITATION DEVELOPS SEEK MEDICAL ATTENTION. INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GIVE ARTIFICIAL RESUSCITATION IF NOT BREATHING. INGESTION: DO NOT INDUCE VOMITING. CALL A PHYSICIAN. GIVE 1 OR 2 GLASSES OF WATER TO DRINK. ***SEE NOTE TO PHYSICIAN UNDER "OTHER PRECAUTIONS."

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SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

I. SMALL LEAKS: WIPE UP OR SOAK UP IMMEDIATELY WITH INERT MATERIAL. REMOVE TO OUTDOORS. 11. LARGE SPILLS: EVACUATE AREA. CONTAIN LIQUID, TRANSFER TO CLOSED METAL CONTAINERS. KEEP OUT OF WATER SUPPLY.

WASTE DISPOSAL METHOD

1. RECLAIM OR INCINERATE THE NON-HARDENED PRODUCT. If MATERIAL RESULTING FROM CLEAN UP OPERATIONS MAY BE HAZARDOUS WASTE, THEREFORE, SUBJECT TO SPECIFIC REGULATIONS. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AT TIME OF DISPOSAL.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

IN LARGE QUANTITIES, LETHAL CONCENTRATIONS MAY EXIST IN AREAS WITH POOR VENTILATION. DO NOT USE IN POORLY VENTILATED OR CONFINED SPACES WITHOUT PROPER RESPIRATORY PROTECTION. VAPORS WILL COLLECT IN LOW PLACES SUCH AS PITS, STORAGE TANKS AND OTHER CONFINED SPACES. DO NOT ENTER THESE AREAS UNLESS SPECIAL BREATHING APPARATUS IS USED AND AN OBSERVER IS PRESENT.

OTHER PRECAUTIONS

*** NOTE TO PHYSICIAN: BECAUSE RAPID ABSORPTION MAY OCCUR THROUGH LUNGS IF ASPIRATED AND CAUSE SYSTEMIC EFFECTS, THE DECISION OF WHETHER TO INDUCE VOMITING OR NOT SHOULD BE MADE BY PHYSICIAN. IF LAVAGE IS PERFORMED, SUGGEST ENDOTRACHEAL AND/OR ESPHOGAL CONTROL. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. DO NOT ADMINISTER SYMPATHOMIMETIC DRUGS UNLESS ABSOLUTELY NECESSARY. NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION

1. IF VENTILATION IS INADEQUATE TO MAINTAIN ATMOSPHERIC LEVELS BELOW THE TLV, WEAR A NIOSH APPROVED AIR PURIFYING ORGANIC CARTRIDGE RESPIRATOR. 11. FOR EMERGENCY AND OVER EXPOSURE, USE AN APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.

VENTILATION

ADEQUATE VENTILATION SHOULD BE PROVIDED TO KEEP VAPOR CONCENTRATIONS BELOW ACCEPTABLE EXPOSURE GUIDELINES. USE ONLY WITH ADEQUATE VENTILATION.

PROTECTIVE GLOVES

GLOVES ARE RECOMMENDED. NEOPRENE-LATEX GLOVES HAVE BEEN USED SATISFACTORILY.

EYE PROTECTION

SPLASH PROOF GOGGLES ONLY REQUIRED IF HANDLING POSES A RISK OF EYE CONTACT.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

AS NECESSARY TO PREVENT SKIN CONTACT. SELECTION OF SPECIFIC ITEMS SUCH AS GLOVES, BOOTS, APRON, OR FULL BODY SUIT WILL DEPEND ON OPERATION. WORK STATION CONDITIONS SHOULD BE EVALUATED BY MANAGEMENT TO DETERMINE PROPER PERSONAL PROTECTION.

WORK/HYGIENIC PRACTICES

DO NOT ALLOW EYE OR SKIN CONTACT. AVOID BREATHING VAPORS. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING.

SECTION 9 - DISCLAIMER

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