



MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME _____ FORMALIN, FORMA-VIAL
 MANUFACTURER _____ SCIGEN INC.
 333 EAST GARDENA BLVD.
 GARDENA, CA 90248
 (310) 324-6576

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

CAS #:NONE

HAZARDOUS INGREDIENTS

CONTAINS FORMALDEHYDE, CHEMICAL ABSTRACTS REGISTRY NUMBER 50-00-0.

CONTAINS METHYL ALCOHOL, CHEMICAL ABSTRACTS REGISTRY NUMBER 67-56-1.

	CAS #	%	Permissible Exposure Limits-OSHA	
			TWA	OTHER
Formaldehyde	50-0-00	3.75- 4.0	.75 ppm	2 ppm
Methanol	67-56-1	0.5-1.0	200 ppm	250 ppm STEL

NFPA Hazard Rating:

4 - Extreme

3 - High

2 - Moderate

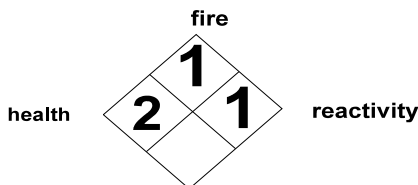
1 - Slight

0 - Insignificant

Primary Entry Routes: Inhalation and eye contact

Target Organs: Respiratory tract, eyes

Carcinogenicity: IARC, NTP, and OSHA do not list chemical ingredients as a carcinogen.



SECTION 3: HAZARD IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS

HARMFUL

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

HARMFUL: POSSIBLE RISK OF IRREVERSIBLE EFFECTS THROUGH INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

POTENTIAL CANCER HAZARD.

CONTAINS FORMALDEHYDE READILY ABSORBED THROUGH SKIN.

COMBUSTIBLE LIQUID. TARGET ORGAN(S): EYES KIDNEYS

CALIF. PROP. 65 CARCINOGEN.

DO NOT BREATHE VAPOR. WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

SECTION 4: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR

LIQUID.
PHYSICAL PROPERTIES
BOILING POINT: 100 C
FLASHPOINT 144F (62.22C)
EXPLOSION LIMITS IN AIR:
UPPER 70 %
LOWER 7 %
VAPOR PRESSURE: 40 MMHG @ 39 C
SOLUBILITY:
WATER -Z1079
SPECIFIC GRAVITY: 1.08
VAPOR DENSITY: 1 G/L

SECTION 5: FIRST-AID MEASURES

IF **SWALLOWED**, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.
IF **INHALED**, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF **SKIN CONTACT**, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
IN CASE OF CONTACT WITH **EYES**, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 6: EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: GENERAL MECHANICAL AND LOCAL EXHAUST SHOULD BE USED IN COMBINATION FOR EFFECTIVE VENTILATION OF FUME EXPOSURE.
PROTECTIVE EQUIPMENT: NEOPRENE OR RUBBER GLOVES, CHEMICAL SAFETY GOGGLES, NIOSH/MSHA APPROVED RESPIRATORS, SAFETY SHOWER, AND EYE BATH SHOULD ALL BE CONSIDERED WHEN WORKING WITH FORMALIN.

SECTION 7: TOXICOLOGICAL INFORMATION

TOPICAL EFFECTS

SKIN: AVOID CONTACT AT ALL TIMES. THIS CHEMICAL CAN BE A SEVERE SKIN IRRITANT. SYMPTOMS MAY INCLUDE CRACKING, DRYING, WHITE DISCOLORATION, AND SCALING. INTERMITTENT CONTACT MAY RESULT IN ALLERGIC DERMATITIS, POSSIBLY OF AN ECZEMATOUS NATURE.

EYES: AIR CONCENTRATIONS OF 20 PPM CAN BE QUICKLY IRRITATING TO THE EYES. DEPENDING ON THE CONCENTRATION THAT COMES IN CONTACT WITH AN EYE, THE INJURIES SUSTAINED MAY RANGE FROM MILD DISCOMFORT TO PERMANENT CORNEAL CLOUDING AND LOSS OF VISION. SEVERITY IS ALSO DEPENDENT ON HOW QUICKLY THE EYES ARE FLUSHED WITH WATER AFTER THE ACCIDENT.

SYSTEMIC EFFECTS

INGESTION: FORMALIN SOLUTIONS CAN CAUSE VARYING DEGREES OF IRRITATION TO ALL MUCOUS MEMBRANES OF THE MOUTH AND THROAT. EXPOSURE TO THE GASTROINTESTINAL TRACK MAY CAUSE NAUSEA AND VOMITING. ACTUAL INGESTION COULD LEAD TO STOMACH PAINS, LOSS OF CONSCIOUSNESS AND DEATH.

INHALATION: FORMALIN IN CONCENTRATIONS ABOVE 0.5 PPM CAN IRRITATE THE NOSE AND THROAT.

SECTION 8: STABILITY AND REACTIVITY

STABILITY: HAZARDOUS INSTABILITIES HAVE NOT BEEN OBSERVED.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

INCOMPATIBILITY: AVOID CONTACT WITH ALKALIS, ACIDS, PHENOL AND OXIDIZING AGENTS.

SECTION 9: SPILLS AND LEAKS

LARGE SPILLS MUST BE IMMEDIATELY NEUTRALIZED WITH NEUTRA-FORM™. THE AREA OF THE SPILL SHOULD BE EVACUATED UNTIL THE PROPER AUTHORITIES HAVE JUDGED IT SAFE FOR RE-ENTRY. LEAKING CONTAINERS MUST BE PLACED IN A WELL-VENTILATED AREA FOR PROPER CONTAINMENT OF THE FORMALIN VAPORS. ANY SMALL SPILLS MAY BE ABSORBED AND NEUTRALIZED WITH NEUTRA-WIPES™. THE ABOVE MENTIONED PRODUCTS MAY BE OBTAINED FROM ALLEGIANCE OR SAKURA FINETEK (800-725-8723).

SECTION 10: DISPOSAL CONSIDERATIONS

DISPOSAL PROCEDURES: USED OR SPENT FORMALIN SHOULD BE NEUTRALIZED PRIOR TO DISPOSAL. IN MOST GEOGRAPHIC LOCATIONS, NEUTRALIZING WITH NEUTRALEX™ ALLOWS IT TO BE SAFELY Poured

DOWN THE DRAIN. HOWEVER, THIS IS SUBJECT TO LOCAL, STATE, AND FEDERAL LAWS REGARDING THE CLEAN UP AND REMOVAL OF TOXIC SUBSTANCES.

SECTION 11: SHIPPING AND STORAGE

FORMALIN SHOULD ALWAYS BE STORED IN CLOSED CONTAINERS AND KEPT IN A COOL, WELL VENTILATED AREA THAT IS AWAY FROM HEAT, SPARKS, AND AN OPEN FLAME. USE ONLY DOT APPROVED CONTAINERS FOR STORAGE AND SHIPPING PURPOSES.

SECTION 12: REGULATORY INFORMATION

ACGIH TLV-STEL 250 PPM (SKIN)

ACGIH TLV-TWA 200 PPM (SKIN)

OSHA PEL (GEN INDU):8H TWA 200 PPM (260 MG/M3)

OSHA PEL (CONSTRUC):8H TWA 200 PPM (260 MG/M3)

EPA GENETOX PROGRAM 1988, NEGATIVE: SHE-CLONAL ASSAY; CELL TRANSFORM.-SA7/SHE

EPA GENETOX PROGRAM 1988, NEGATIVE: N CRASSA-ANEUPLOIDY; IN VITRO SCE-NONHUMAN

EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES

EPA TSCA SECTION 8(E) RISK NOTIFICATION, 8EHQ-0892-8989 ON EPA IRIS DATABASE

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001

NIOSH ANALYTICAL METHOD, 1994: METHANOL, 2000

NIOSH ANALYTICAL METHOD, 1996: VOLATILE ORGANIC COMPOUND, 2549

U.S. INFORMATION

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT IS SUBJECT TO SARA313 REPORTING REQUIREMENTS.

THIS PRODUCT IS OR CONTAINS CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

SECTION 13: DISCLAIMER

THIS MATERIAL SAFETY DATA SHEET HAS BEEN FURNISHED ON REQUEST. A REVISED MATERIAL SAFETY DATA SHEET WILL BE FURNISHED ONLY IF REQUESTED OR IN CASE OF SPECIFICATION CHANGES. THE ABOVE INFORMATION, WHICH IS ACCURATE TO THE BEST OF OUR KNOWLEDGE AND BELIEF, DESCRIBES THE SAFETY ASPECTS OF OUR PRODUCT BUT DOES NOT WARRANT ANY PRODUCT PROPERTIES. THE COMPANY GIVES NO WARRANTY AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION.

MSDS PREPARED BY: SCIGEN INC.

DIRECTOR OF ENVIRONMENTAL HEALTH & SAFETY

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