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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	42511
NAME:	Giemsa stain, modified solution
SYNONYMS:	Azure eosin methylene blue Giemsa solution
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

FLAMMABLE LIQUIDS (CATEGORY 2), H225

ACUTE TOXICITY, ORAL (CATEGORY 3), H301

ACUTE TOXICITY, INHALATION (CATEGORY 3), H331

ACUTE TOXICITY, DERMAL (CATEGORY 3), H311

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 1), H370

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM



SIGNAL WORD

DANGER

HAZARD STATEMENT(S)

H225 HIGHLY FLAMMABLE LIQUID AND VAPOUR.
H301 + H311 + H331 TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF INHALED.
H370 CAUSES DAMAGE TO ORGANS.

PRECAUTIONARY STATEMENT(S)

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES.
NO SMOKING.
P233 KEEP CONTAINER TIGHTLY CLOSED.
P240 GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.
P241 USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/ LIGHTING/
EQUIPMENT.
P242 USE ONLY NON-SPARKING TOOLS.
P243 TAKE PRECAUTIONARY MEASURES AGAINST STATIC
DISCHARGE.
P260 DO NOT BREATHE DUST/ FUME/ GAS/ MIST/ VAPOURS/ SPRAY.
P264 WASH SKIN THOROUGHLY AFTER HANDLING.
P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.
P271 USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE
PROTECTION/ FACE PROTECTION.
P301 + P310 + P330 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER/
DOCTOR. RINSE MOUTH.
P303 + P361 + P353 IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY ALL
CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.
P304 + P340 + P311 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP
COMFORTABLE FOR BREATHING. CALL A POISON CENTER/
DOCTOR.
P307 + P311 IF EXPOSED: CALL A POISON CENTER OR DOCTOR/ PHYSICIAN.
P362 TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE
REUSE.
P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-
RESISTANT FOAM FOR EXTINCTION.
P403 + P233 STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER
TIGHTLY CLOSED.
P403 + P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL.
P405 STORE LOCKED UP.
P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE
DISPOSAL PLANT.

**HAZARDS NOT
OTHERWISE
CLASSIFIED (HNOC)**

NONE

**OR NOT COVERED
BY GHS**

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: $C_{14}H_{14}ClN_3S$

MW: 291.80

CAS-NO. 51811-82-6

PURITY:

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
METHANOL		
	FLAM. LIQ. 2; ACUTE TOX. 3; STOT SE 1; H225, H301, H331, H311, H370 CONCENTRATION LIMITS: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT SE 2, H371	>= 70 - < 90 %

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

SECTION 4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE FIRST AIDERS NEED TO PROTECT THEMSELVES. SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.

IF INHALED AFTER INHALATION: FRESH AIR. IMMEDIATELY CALL IN PHYSICIAN. IF BREATHING STOPS: IMMEDIATELY APPLY ARTIFICIAL RESPIRATION, IF NECESSARY ALSO OXYGEN.

IN CASE OF SKIN CONTACT IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER. CALL A PHYSICIAN IMMEDIATELY.

IN CASE OF EYE CONTACT AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.

IF SWALLOWED	AFTER SWALLOWING: FRESH AIR. MAKE VICTIM DRINK ETHANOL (E.G. 1 DRINKING GLASS OF A 40% ALCOHOLIC BEVERAGE). CALL A DOCTOR IMMEDIATELY (MENTION METHANOL INGESTION). ONLY IN EXCEPTIONAL CASES, IF NO MEDICAL CARE IS AVAILABLE WITHIN ONE HOUR, INDUCE VOMITING (ONLY IN FULLY CONSCIOUS PERSONS) AND MAKE VICTIM DRINK ETHANOL AGAIN (APPROX. 0.3 ML OF A 40% ALCOHOLIC BEVERAGE/KG BODY WEIGHT/HOUR).
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED	NO DATA AVAILABLE

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA
FOAM CARBON DIOXIDE (CO₂) DRY POWDER

UNSUITABLE EXTINGUISHING MEDIA
FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF EXTINGUISHING AGENTS ARE GIVEN.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

CARBON OXIDES
COMBUSTIBLE.
PAY ATTENTION TO FLASHBACK.
VAPORS ARE HEAVIER THAN AIR AND MAY SPREAD ALONG FLOORS.
DEVELOPMENT OF HAZARDOUS COMBUSTION GASES OR VAPOURS POSSIBLE IN THE EVENT OF FIRE.
FORMS EXPLOSIVE MIXTURES WITH AIR AT AMBIENT TEMPERATURES.

ADVICE FOR FIREFIGHTERS

STAY IN DANGER AREA ONLY WITH SELF-CONTAINED BREATHING APPARATUS. PREVENT SKIN CONTACT BY KEEPING A SAFE DISTANCE OR BY WEARING SUITABLE PROTECTIVE CLOTHING.

FURTHER INFORMATION

REMOVE CONTAINER FROM DANGER ZONE AND COOL WITH WATER. PREVENT FIRE EXTINGUISHING WATER FROM CONTAMINATING SURFACE WATER OR THE GROUND WATER SYSTEM.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL
PRECAUTIONS,
PROTECTIVE EQUIPMENT
AND EMERGENCY
PROCEDURES**

ADVICE FOR NON-EMERGENCY PERSONNEL: DO NOT BREATHE VAPORS, AEROSOLS. AVOID SUBSTANCE CONTACT. ENSURE ADEQUATE VENTILATION. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION. EVACUATE THE DANGER AREA, OBSERVE EMERGENCY PROCEDURES, CONSULT AN EXPERT.

FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL
PRECAUTIONS**

DO NOT LET PRODUCT ENTER DRAINS. RISK OF EXPLOSION.

**METHODS AND
MATERIALS FOR
CONTAINMENT AND
CLEANING UP**

COVER DRAINS. COLLECT, BIND, AND PUMP OFF SPILLS. OBSERVE POSSIBLE MATERIAL RESTRICTIONS (SEE SECTIONS 7 AND 10). TAKE UP CAREFULLY WITH LIQUID-ABSORBENT MATERIAL (E.G. CHEMIZORB). DISPOSE OF PROPERLY. CLEAN UP AFFECTED AREA.

**REFERENCE TO OTHER
SECTIONS**

FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE
HANDLING**

WORK UNDER HOOD. DO NOT INHALE SUBSTANCE/MIXTURE. AVOID GENERATION OF VAPOURS/AEROSOLS.
KEEP AWAY FROM OPEN FLAMES, HOT SURFACES AND SOURCES OF IGNITION.TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.
IMMEDIATELY CHANGE CONTAMINATED CLOTHING.
APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE.
FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE
STORAGE, INCLUDING
ANY INCOMPATIBILITIES**

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION. KEEP LOCKED UP OR IN AN AREA ACCESSIBLE ONLY TO QUALIFIED OR AUTHORIZED PERSONS.

Store at RT

SPECIFIC END USE(S)

APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS
METHANOL	67-56-1	TWA	200 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	DANGER OF CUTANEOUS ABSORPTION		
		STEL	250 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		DANGER OF CUTANEOUS ABSORPTION		
		TWA	200 PPM 260 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		POTENTIAL FOR DERMAL ABSORPTION		
		ST	250 PPM 325 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		POTENTIAL FOR DERMAL ABSORPTION		
		TWA	200 PPM 260 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		STEL	250 PPM 325 MG/M3	USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000
		SKIN NOTATION		
		TWA	200 PPM 260 MG/M3	USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000
		SKIN NOTATION		
		C	1,000 PPM	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		
		PEL	200 PPM 260 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		
		STEL	250 PPM 325 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		

BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS

COMPONENT	CAS-NO.	PARAMETERS	VALUE	BIOLOGICAL SPECIMEN	BASIS
METHANOL	67-56-1	METHANOL	15 MG/L	URINE	ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)
	REMARKS	END OF SHIFT (AS SOON AS POSSIBLE AFTER EXPOSURE CEASES)			

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS IMMEDIATELY CHANGE CONTAMINATED CLOTHING. APPLY PREVENTIVE SKIN PROTECTION. WASH HANDS AND FACE AFTER WORKING WITH SUBSTANCE.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU). SAFETY GLASSES

SKIN PROTECTION HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

FULL CONTACT
MATERIAL: BUTYL-RUBBER
MINIMUM LAYER THICKNESS: 0.3 MM
BREAK THROUGH TIME: 480 MIN
MATERIAL TESTED: BUTOJECT (KCL 897, SIZE M)

SPLASH CONTACT
MATERIAL: NITRILE RUBBER
MINIMUM LAYER THICKNESS: 0.4 MM
BREAK THROUGH TIME: 30 MIN
MATERIAL TESTED: CAMATRIL (KCL 730, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE EC APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

BODY PROTECTION FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING.

RESPIRATORY PROTECTION	REQUIRED WHEN VAPOURS/AEROSOLS ARE GENERATED. OUR RECOMMENDATIONS ON FILTERING RESPIRATORY PROTECTION ARE BASED ON THE FOLLOWING STANDARDS: DIN EN 143, DIN 14387 AND OTHER ACCOMPANYING STANDARDS RELATING TO THE USED RESPIRATORY PROTECTION SYSTEM.
CONTROL OF ENVIRONMENTAL EXPOSURE	DO NOT LET PRODUCT ENTER DRAINS. RISK OF EXPLOSION.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Blue liquid
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	
FLASH POINT	12 °C
EVAPOURATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	NO DATA AVAILABLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	NO DATA AVAILABLE
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE

OTHER SAFETY INFORMATION

NO DATA AVAILABLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.
CHEMICAL STABILITY	THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS
POSSIBILITY OF HAZARDOUS REACTIONS	NO DATA AVAILABLE
CONDITIONS TO AVOID	WARMING.
INCOMPATIBLE MATERIALS	ACIDS, ACID CHLORIDES, ACID ANHYDRIDES, OXIDIZING AGENTS, ALKALI METALS, REDUCING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY	ACUTE TOXICITY ESTIMATE ORAL - 143 MG/KG (CALCULATION METHOD) ACUTE TOXICITY ESTIMATE ORAL - 100.1 MG/KG (METHANOL) (EXPERT JUDGMENT) SYMPTOMS: NAUSEA, VOMITING ACUTE TOXICITY ESTIMATE INHALATION - 4 H - 4.43 MG/L (CALCULATION METHOD) ACUTE TOXICITY ESTIMATE INHALATION - 4 H - 3.1 MG/L (METHANOL) (EXPERT JUDGMENT) SYMPTOMS: IRRITATION SYMPTOMS IN THE RESPIRATORY TRACT. ACUTE TOXICITY ESTIMATE DERMAL - 428.71 MG/KG (CALCULATION METHOD) ACUTE TOXICITY ESTIMATE DERMAL - 300.1 MG/KG (METHANOL) (EXPERT JUDGMENT) NO DATA AVAILABLE
SKIN CORROSION/IRRITATION	SKIN - RABBIT (METHANOL) RESULT: NO SKIN IRRITATION REMARKS: (ECHA) DRYING-OUT EFFECT RESULTING IN ROUGH AND CHAPPED SKIN. (METHANOL)

**SERIOUS EYE
DAMAGE/EYE IRRITATION**

EYES - RABBIT (METHANOL)
RESULT: NO EYE IRRITATION
REMARKS: (ECHA)

**RESPIRATORY OR SKIN
SENSITISATION**

SENSITISATION TEST: - GUINEA PIG (METHANOL)
RESULT: NEGATIVE
(OECD TEST GUIDELINE 406)

**GERM CELL
MUTAGENICITY**

BASED ON AVAILABLE DATA THE CLASSIFICATION
CRITERIA ARE NOT MET. (METHANOL)

TEST TYPE: AMES TEST
(METHANOL)
TEST SYSTEM: SALMONELLA TYPHIMURIUM
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 471
RESULT: NEGATIVE

TEST TYPE: IN VITRO MAMMALIAN CELL GENE
MUTATION TEST
(METHANOL)
TEST SYSTEM: CHINESE HAMSTER LUNG CELLS
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 476
RESULT: NEGATIVE

(METHANOL)TEST TYPE: MICRONUCLEUS TEST
SPECIES: MOUSE
CELL TYPE: BONE MARROW
APPLICATION ROUTE: INTRAPERITONEAL INJECTION
METHOD: OECD TEST GUIDELINE 474
RESULT: NEGATIVE

CARCINOGENICITY

DID NOT SHOW CARCINOGENIC EFFECTS IN ANIMAL EXPERIMENTS. (METHANOL)

IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS
GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS
PROBABLE, POSSIBLE OR CONFIRMED HUMAN
CARCINOGEN BY IARC.

NTP: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS
GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A
KNOWN OR ANTICIPATED CARCINOGEN BY NTP.

OSHA: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS
GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF
REGULATED CARCINOGENS.

REPRODUCTIVE TOXICITY

BASED ON AVAILABLE DATA THE CLASSIFICATION
CRITERIA ARE NOT MET. (METHANOL)

**SPECIFIC TARGET ORGAN
TOXICITY - SINGLE
EXPOSURE**

MIXTURE CAUSES DAMAGE TO ORGANS. EYES

**SPECIFIC TARGET ORGAN
TOXICITY - REPEATED
EXPOSURE**

NO DATA AVAILABLE

ASPIRATION HAZARD

NO DATA AVAILABLE

**ADDITIONAL
INFORMATION**

RTECS: NOT AVAILABLE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL,
PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT
BEEN THOROUGHLY INVESTIGATED. (METHANOL)

OTHER DANGEROUS PROPERTIES CAN NOT BE
EXCLUDED.

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL
HYGIENE AND SAFETY PRACTICE.

SYSTEMIC EFFECTS:

(METHANOL)

ACIDOSIS

DROP IN BLOOD PRESSURE

AGITATION, SPASMS

INEBRIATION

DIZZINESS

DROWSINESS

HEADACHE

IMPAIRMENT OF VISION

BLINDNESS

NARCOSIS

COMA

(METHANOL)

SYMPTOMS MAY BE DELAYED.

(METHANOL)

DAMAGE TO:

(METHANOL)

LIVER

KIDNEY

CARDIAC

IRREVERSIBLE DAMAGE OF THE OPTICAL NERVE.

(METHANOL)

OTHER DANGEROUS PROPERTIES CAN NOT BE
EXCLUDED. (METHANOL)

THIS SUBSTANCE SHOULD BE HANDLED WITH
PARTICULAR CARE.

(METHANOL)

STOMACH - IRREGULARITIES - BASED ON HUMAN
EVIDENCE

COMPONENTS

**METHANOL
ACUTE TOXICITY**

ACUTE TOXICITY ESTIMATE ORAL - 100.1 MG/KG
(EXPERT JUDGMENT)
SYMPTOMS: NAUSEA, VOMITING

ACUTE TOXICITY ESTIMATE INHALATION - 4 H - 3.1 MG/L
(EXPERT JUDGMENT)
SYMPTOMS: IRRITATION SYMPTOMS IN THE
RESPIRATORY TRACT.

ACUTE TOXICITY ESTIMATE DERMAL - 300.1 MG/KG
(EXPERT JUDGMENT)

NO DATA AVAILABLE

**SKIN
CORROSION/IRRITATION**

SKIN - RABBIT
RESULT: NO SKIN IRRITATION
REMARKS:
(ECHA)
DRYING-OUT EFFECT RESULTING IN ROUGH AND
CHAPPED SKIN.

**SERIOUS EYE
DAMAGE/EYE IRRITATION**

EYES - RABBIT
RESULT: NO EYE IRRITATION
REMARKS:
(ECHA)

**RESPIRATORY OR SKIN
SENSITISATION**

SENSITISATION TEST: - GUINEA PIG
RESULT: NEGATIVE
(OECD TEST GUIDELINE 406)

**GERM CELL
MUTAGENICITY**

BASED ON AVAILABLE DATA THE CLASSIFICATION
CRITERIA ARE NOT MET.
AMES TEST
SALMONELLA TYPHIMURIUM
RESULT: NEGATIVE
IN VITRO MAMMALIAN CELL GENE MUTATION TEST
CHINESE HAMSTER LUNG CELLS
RESULT: NEGATIVE
OECD TEST GUIDELINE 474
MOUSE - MALE AND FEMALE - BONE MARROW
RESULT: NEGATIVE

CARCINOGENICITY

DID NOT SHOW CARCINOGENIC EFFECTS IN ANIMAL
EXPERIMENTS.

REPRODUCTIVE TOXICITY

BASED ON AVAILABLE DATA THE CLASSIFICATION
CRITERIA ARE NOT MET.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	CAUSES DAMAGE TO ORGANS. - EYES, CENTRAL NERVOUS SYSTEM REMARKS: CLASSIFIED ACCORDING TO REGULATION (EU) 1272/2008, ANNEX VI (TABLE 3.1/3.2) ACUTE ORAL TOXICITY - NAUSEA, VOMITING ACUTE INHALATION TOXICITY - IRRITATION SYMPTOMS IN THE RESPIRATORY TRACT.
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	NO DATA AVAILABLE
ASPIRATION HAZARD	NO DATA AVAILABLE

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH	FLOW-THROUGH TEST LC50 - LEPOMIS MACROCHIRUS (BLUEGILL) - 15,400.0 MG/L - 96 H (METHANOL) (US-EPA)
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	SEMI-STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 18,260 MG/L - 96 H (METHANOL) (OECD TEST GUIDELINE 202)
TOXICITY TO ALGAE	STATIC TEST ERC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN ALGAE) - CA. 22,000.0 MG/L - 96 H (METHANOL) (OECD TEST GUIDELINE 201)
TOXICITY TO BACTERIA	STATIC TEST IC50 - ACTIVATED SLUDGE - > 1,000 MG/L - 3 H (METHANOL) (OECD TEST GUIDELINE 209)

PERSISTENCE AND DEGRADABILITY

BIODEGRADABILITY	RESULT: 99 % - READILY BIODEGRADABLE. (OECD TEST GUIDELINE 301D)
BIOCHEMICAL OXYGEN DEMAND (BOD)	600 - 1,120 MG/G (METHANOL) REMARKS: (IUCLID)
CHEMICAL OXYGEN DEMAND (COD)	1,420 MG/G (METHANOL) REMARKS: (IUCLID)
THEORETICAL OXYGEN DEMAND	1,500 MG/G (METHANOL) REMARKS: (LIT.)
RATIO BOD/THBOD	76 % (METHANOL) REMARKS: CLOSED BOTTLE TEST(IUCLID)

BIOACCUMULATIVE POTENTIAL

BIOACCUMULATION	CYPRINUS CARPIO (CARP) - 72 D AT 20 C - 5 MG/L(METHANOL)
	BIOCONCENTRATION FACTOR (BCF): 1.0
MOBILITY IN SOIL	WILL NOT ADSORB ON SOIL. (METHANOL)
RESULTS OF PBT AND VPVB ASSESSMENT	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED.
OTHER ADVERSE EFFECTS	
ADDITIONAL ECOLOGICAL INFORMATION	AVOID RELEASE TO THE ENVIRONMENT.
STABILITY IN WATER	AT 19 C83 - 91 % - 72 H (METHANOL) REMARKS: HYDROLYZES ON CONTACT WITH WATER.HYDROLYZES READILY.
COMPONENTS	
METHANOL	
TOXICITY TO FISH	FLOW-THROUGH TEST LC50 - LEPOMIS MACROCHIRUS (BLUEGILL) - 15,400.0 MG/L - 96 H (US-EPA)
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	SEMI-STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 18,260 MG/L - 96 H (OECD TEST GUIDELINE 202)
TOXICITY TO ALGAE	STATIC TEST ERC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA (GREEN ALGAE) - CA. 22,000.0 MG/L - 96 H (OECD TEST GUIDELINE 201)
TOXICITY TO BACTERIA	STATIC TEST IC50 - ACTIVATED SLUDGE - > 1,000 MG/L - 3 H (OECD TEST GUIDELINE 209)

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT	WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH THE NATIONAL AND LOCAL REGULATIONS. LEAVE CHEMICALS IN ORIGINAL CONTAINERS. NO MIXING WITH OTHER WASTE.
CONTAMINATED PACKAGING	DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: METHANOL SOLUTION
UN NUMBER: 1230
CLASS: 3
PACKING GROUP: II
REPORTABLE QUANTITY
(RQ):
POISON INHALATION HAZARD: NO

IMDG

PROPER SHIPPING NAME: METHANOL SOLUTION
UN NUMBER: 1230
CLASS: 3 (6.1)
PACKING GROUP: II
EMS-NO: F-E, S-D

IATA

PROPER SHIPPING NAME: METHANOL SOLUTION
UN NUMBER: 1230
CLASS: 3 (6.1)
PACKING GROUP: II

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 302 EHS TPQ.

SARA 313 COMPONENTS

THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:

	CAS-NO.	REVISION DATE
METHANOL	67-56-1	07-01-2007

SARA 311/312 HAZARDS FIRE HAZARD, CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
METHANOL	67-56-1	07-01-2007

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
METHANOL	67-56-1	07-01-2007

NEW JERSEY RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
METHANOL	67-56-1	07-01-2007

SECTION 16. OTHER INFORMATION

FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H225	HIGHLY FLAMMABLE LIQUID AND VAPOUR.
H301 + H311 + H331	TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF INHALED.
H370	CAUSES DAMAGE TO ORGANS.

MSDS LEGEND

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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