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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 14091

NAME: Morpholine

SYNONYMS:

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 3), H226
ACUTE TOXICITY, ORAL (CATEGORY 4), H302
ACUTE TOXICITY, INHALATION (CATEGORY 4), H332
ACUTE TOXICITY, DERMAL (CATEGORY 3), H311
SKIN CORROSION (CATEGORY 1B), H314
SERIOUS EYE DAMAGE (CATEGORY 1), H318

SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 2), H401

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)

H226 FLAMMABLE LIQUID AND VAPOUR.
H302 + H332 HARMFUL IF SWALLOWED OR IF INHALED.
H311 TOXIC IN CONTACT WITH SKIN.
H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
H401 TOXIC TO AQUATIC LIFE.

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.
P261 AVOID BREATHING 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.
P273 AVOID RELEASE TO THE ENVIRONMENT.
P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE
PROTECTION/ FACE PROTECTION.
P301 + P312 + P330 IF SWALLOWED: CALL A POISON CENTER/DOCTOR IF YOU FEEL
UNWELL. RINSE MOUTH.
P301 + P330 + P331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING.
P303 + P361 + P353 IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL
CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER.
P304 + P340 + P310 IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP
COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A POISON
CENTER/DOCTOR.
P305 + P351 + P338 +
P310 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL
MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO
DO. CONTINUE RINSING. IMMEDIATELY CALL A POISON
CENTER/DOCTOR.
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 + 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) OR NOT COVERED BY GHS NONE

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF: C₄H₉NO
MW: 87.12
CAS-NO. 110-91-8
PURITY: ≥ 99% (GC)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Morpholine		
	FLAM. LIQ. 3; ACUTE TOX. 4; ACUTE TOX. 3; SKIN CORR. 1B; EYE DAM. 1; H226, H302, H331, H311, H314, H318	≤ 100 %

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 AIDER NEEDS TO PROTECT HIMSELF. 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. IMMEDIATELY CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.
IF SWALLOWED	AFTER SWALLOWING: MAKE VICTIM DRINK WATER (TWO GLASSES AT MOST), AVOID VOMITING (RISK OF PERFORATION). CALL A PHYSICIAN IMMEDIATELY. DO NOT ATTEMPT TO NEUTRALISE.
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 WATER FOAM CARBON DIOXIDE (CO ₂) DRY POWDER
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UNSUITABLE EXTINGUISHING MEDIA
FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF
EXTINGUISHING AGENTS ARE GIVEN.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

CARBON OXIDES
NITROGEN OXIDES (NO_x)
COMBUSTIBLE.
VAPORS ARE HEAVIER THAN AIR AND MAY SPREAD
ALONG FLOORS.
FORMS EXPLOSIVE MIXTURES WITH AIR AT ELEVATED
TEMPERATURES.
DEVELOPMENT OF HAZARDOUS COMBUSTION GASES OR
VAPOURS POSSIBLE IN THE EVENT OF FIRE.

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. SUPPRESS (KNOCK DOWN)
GASES/VAPORS/MISTS WITH A WATER SPRAY JET.
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). 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.
HYGROSCOPIC

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
Morpholine	110-91-8	TWA	20 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	NOT CLASSIFIABLE AS A HUMAN CARCINOGEN DANGER OF CUTANEOUS ABSORPTION		
		TWA	20 PPM 70 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		POTENTIAL FOR DERMAL ABSORPTION		
		ST	30 PPM 105 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		POTENTIAL FOR DERMAL ABSORPTION		
		TWA	20 PPM 70 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		SKIN DESIGNATION		
		TWA	20 PPM 70 MG/M3	USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000
		SKIN NOTATION		
		STEL	30 PPM 105 MG/M3	USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000
		SKIN NOTATION		
		STEL	30 PPM 105 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		
		PEL	20 PPM 70 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		

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). TIGHTLY FITTING SAFETY GOGGLES

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.

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	Colorless to almost clear liquid
ODOUR	AMMONIACAL UNPLEASANT
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	10.6 AT 5 G/L AT 20 °C
MELTING POINT/FREEZING POINT	-5 °C
INITIAL BOILING POINT AND BOILING RANGE	129 °C
FLASH POINT	32 °C
EVAPOURATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE

UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	UPPER EXPLOSION LIMIT: 10.8 %(V) LOWER EXPLOSION LIMIT: 1.8 %(V)
VAPOUR PRESSURE	9.33 HPA AT 20 C 41.32 HPA AT 38 C
VAPOUR DENSITY	3.01 - (AIR = 1.0)
RELATIVE DENSITY	1
WATER SOLUBILITY	COMPLETELY MISCIBLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	LOG POW: -2.55 AT 25 C - BIOACCUMULATION IS NOT EXPECTED.
AUTO-IGNITION TEMPERATURE	255 C AT 1,013 HPA - DIN 51794
DECOMPOSITION TEMPERATURE	> 330 C
VISCOSITY	2.2 MM ² /S AT 20 C
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE

OTHER SAFETY INFORMATION

DISSOCIATION CONSTANT	8.49 AT 25 C
RELATIVE VAPOR DENSITY	3.01 - (AIR = 1.0)

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	VAPOR/AIR-MIXTURES ARE EXPLOSIVE AT INTENSE WARMING.
CHEMICAL STABILITY	THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS
POSSIBILITY OF HAZARDOUS REACTIONS	EXOTHERMIC REACTION WITH: STRONG OXIDIZING AGENTS NITRILES ACIDS CAUTION! IN CONTACT WITH NITRITES, NITRATES, NITROUS ACID POSSIBLE LIBERATION OF NITROSAMINES!
CONDITIONS TO AVOID	HEATING.
INCOMPATIBLE MATERIALS	ALUMINUM, NONFERROUS METALS
HAZARDOUS DECOMPOSITION PRODUCTS	IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY	LD50 ORAL - RAT - MALE AND FEMALE - 1,900 MG/KG (OECD TEST GUIDELINE 401) SYMPTOMS: IF INGESTED, SEVERE BURNS OF THE MOUTH AND THROAT, AS WELL AS A DANGER OF PERFORATION OF THE ESOPHAGUS AND THE STOMACH. ACUTE TOXICITY ESTIMATE INHALATION - 4 H - 3.1 MG/L (EXPERT JUDGMENT) LD50 DERMAL - RABBIT - MALE - 500 MG/KG (OECD TEST GUIDELINE 402) NO DATA AVAILABLE
SKIN CORROSION/IRRITATION	SKIN - RABBIT RESULT: CAUSES BURNS. - 3 MIN (OECD TEST GUIDELINE 404) CLASSIFIED ACCORDING TO REGULATION (EU) 1272/2008, ANNEX VI (TABLE 3.1/3.2)
SERIOUS EYE DAMAGE/EYE IRRITATION	EYES - RABBIT RESULT: CAUSES SERIOUS EYE DAMAGE. (OECD TEST GUIDELINE 405) CAUSES SERIOUS EYE DAMAGE.
RESPIRATORY OR SKIN SENSITISATION	BUEHLER TEST - GUINEA PIG RESULT: NEGATIVE REMARKS: (IUCLID)

**GERM CELL
MUTAGENICITY**

TEST TYPE: AMES TEST
TEST SYSTEM: ESCHERICHIA COLI/SALMONELLA
TYPHIMURIUM
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
RESULT: POSITIVE RESULTS WERE OBTAINED IN SOME IN
VITRO TESTS.
REMARKS: (ECHA)
TEST TYPE: IN VITRO MAMMALIAN CELL GENE
MUTATION TEST
TEST SYSTEM: MOUSE LYMPHOMA TEST
METABOLIC ACTIVATION: METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 476
RESULT: NEGATIVE
TEST TYPE: SISTER CHROMATID EXCHANGE ASSAY
TEST SYSTEM: CHINESE HAMSTER OVARY CELLS
METABOLIC ACTIVATION: WITH AND WITHOUT
METABOLIC ACTIVATION
METHOD: OECD TEST GUIDELINE 479
RESULT: NEGATIVE
TEST TYPE: UNSCHEDULED DNA SYNTHESIS ASSAY
TEST SYSTEM: RAT HEPATOCYTES
METABOLIC ACTIVATION: WITHOUT METABOLIC
ACTIVATION
METHOD: OECD TEST GUIDELINE 482
RESULT: NEGATIVE

TEST TYPE: MICRONUCLEUS TEST
SPECIES: HAMSTER

APPLICATION ROUTE: ORAL

RESULT: NEGATIVE
REMARKS: (ECHA)

CARCINOGENICITY

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 NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN
TOXICITY - SINGLE
EXPOSURE** NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN
TOXICITY - REPEATED
EXPOSURE**

NO DATA AVAILABLE

ASPIRATION HAZARD

NO DATA AVAILABLE

**ADDITIONAL
INFORMATION**

RTECS: QD6475000

MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES, AND SKIN, COUGH, SHORTNESS OF BREATH, HEADACHE, NAUSEA

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

AFTER ABSORPTION:
TOXIC EFFECT ON:
LIVER
KIDNEY

UNDER GIVEN CONDITIONS, CONTACT WITH NITRITES OR NITRIC ACID CAN LEAD TO THE FORMATION OF NITROSAMINES, WHICH HAVE SHOWN THEMSELVES TO BE CARCINOGENIC IN ANIMAL EXPERIMENTS.

OTHER DANGEROUS PROPERTIES CAN NOT BE EXCLUDED.
HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.
STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

TOXICITY TO FISH

STATIC TEST LC50 - ONCORHYNCHUS MYKISS (RAINBOW TROUT) - 180 MG/L - 96 H
REMARKS: (IN SOFT WATER)
(LIT.)

TOXICITY TO DAPHNIA AND
OTHER AQUATIC
INVERTEBRATES
TOXICITY TO ALGAE

STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) -
44.5 MG/L - 48 H
(OECD TEST GUIDELINE 202)
STATIC TEST ERC50 - SKELETONEMA COSTATUM - 9 MG/L
- 72 H
(ISO 10253)

REPORTABLE QUANTITY
(RQ):
POISON INHALATION HAZARD: NO

IMDG
PROPER SHIPPING NAME: MORPHOLINE
UN NUMBER: 2054
CLASS: 8 (3)
PACKING GROUP: I
EMS-NO: F-E, S-C

IATA
PROPER SHIPPING NAME: MORPHOLINE
UN NUMBER: 2054
CLASS: 8 (3)
PACKING GROUP: I

SECTION 15. REGULATORY INFORMATION

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

SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

SARA 311/312 HAZARDS FIRE HAZARD, ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS
NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

SECTION 16. OTHER INFORMATION

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

H226 FLAMMABLE LIQUID AND VAPOUR.
H302 + H332 HARMFUL IF SWALLOWED OR IF INHALED.
H311 TOXIC IN CONTACT WITH SKIN.
H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
H401 TOXIC TO AQUATIC LIFE.

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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