

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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CATALOG #: 30846

NAME: 4-(Dimethylamino)pyridine solution, 0.5 M in THF

SYNONYMS: 4-(Dimethylamino)pyridine solution, 0.5 M in THF

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

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#### 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 4), H302  
ACUTE TOXICITY, DERMAL (CATEGORY 3), H311  
SERIOUS EYE DAMAGE (CATEGORY 1), H318  
CARCINOGENICITY (CATEGORY 2), H351

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 1), NERVOUS SYSTEM, H370  
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3), RESPIRATORY SYSTEM, CENTRAL NERVOUS SYSTEM, H335, H336  
SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 3), H402  
LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 3), H412

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.
H302	HARMFUL IF SWALLOWED.
H311	TOXIC IN CONTACT WITH SKIN.
H318	CAUSES SERIOUS EYE DAMAGE.
H335	MAY CAUSE RESPIRATORY IRRITATION.
H336	MAY CAUSE DROWSINESS OR DIZZINESS.
H351	SUSPECTED OF CAUSING CANCER.
H370	CAUSES DAMAGE TO ORGANS (NERVOUS SYSTEM).
H412	HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

PRECAUTIONARY STATEMENT(S)

P201	OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
P202	DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD.
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.
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.
P303 + P361 + P353	IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.
P304 + P340 + P312	IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP COMFORTABLE FOR BREATHING. CALL A POISON CENTER/

P305 + P351 + P338 + P310	DOCTOR IF YOU FEEL UNWELL. 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.
P307 + P311 P362	IF EXPOSED: CALL A POISON CENTER OR DOCTOR/ PHYSICIAN. 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 P405	STORE IN A WELL-VENTILATED PLACE. KEEP COOL. STORE LOCKED UP.
P501	DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.
<b>HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS</b>	MAY FORM EXPLOSIVE PEROXIDES.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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MF:  $C_7H_{10}N_2$

MW: 122.17

CAS-NO. 1122-58-3

PURITY:

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>TETRAHYDROFURAN</b>		
	FLAM. LIQ. 2; ACUTE TOX. 4; EYE IRRIT. 2A; CARC. 2; STOT SE 3; H225, H302, H319, H351, H335, H336 CONCENTRATION LIMITS: >= 25 %: EYE IRRIT. 2, H319; >= 25 %: STOT SE 3, H335	>= 90 - <= 100%
<b>N,N-DIMETHYLPYRIDIN-4-AMINE</b>		
	ACUTE TOX. 3; ACUTE TOX. 2; SKIN IRRIT. 2; EYE DAM. 1; STOT SE 1; AQUATIC ACUTE 2; AQUATIC CHRONIC	>= 5 - < 10%

	2; H301, H331, H310, H315, H318, H370, H401, H411	
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FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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## SECTION 4. FIRST-AID MEASURES

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### DESCRIPTION OF FIRST AID MEASURES

<b>GENERAL ADVICE</b>	SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.
<b>IF INHALED</b>	AFTER INHALATION: FRESH AIR. CALL IN PHYSICIAN.
<b>IN CASE OF SKIN CONTACT</b>	IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.
<b>IF SWALLOWED</b>	AFTER SWALLOWING: IMMEDIATELY MAKE VICTIM DRINK WATER (TWO GLASSES AT MOST). CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

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## SECTION 5. FIRE AND EXPLOSION DATA

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### EXTINGUISHING MEDIA

<b>SUITABLE EXTINGUISHING MEDIA</b>	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  
NITROGEN OXIDES (NOX)  
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. SUPPRESS (KNOCK DOWN)  
GASES/VAPORS/MISTS WITH A WATER SPRAY JET.  
PREVENT FIRE EXTINGUISHING WATER FROM  
CONTAMINATING SURFACE WATER OR THE GROUND  
WATER SYSTEM.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**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.

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**SECTION 7. HANDLING AND STORAGE**

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<b>PRECAUTIONS FOR SAFE HANDLING</b>	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.
<b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b>	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. KEEP AWAY FROM HEAT AND SOURCES OF IGNITION. HANDLE AND STORE UNDER INERT GAS. TEST FOR PEROXIDE FORMATION PERIODICALLY AND BEFORE DISTILLATION.
<b>SPECIFIC END USE(S)</b>	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**CONTROL PARAMETERS****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS
TETRAHYDROFURAN	109-99-9	TWA	50 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	CONFIRMED ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS DANGER OF CUTANEOUS ABSORPTION		
		STEL	100 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		CONFIRMED ANIMAL CARCINOGEN WITH UNKNOWN RELEVANCE TO HUMANS DANGER OF CUTANEOUS ABSORPTION		
		ST	250 PPM 735 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		TWA	200 PPM 590 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS

		TWA	200 PPM 590 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		TWA	200 PPM 590 MG/M3	USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000
		STEL	250 PPM 735 MG/M3	USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000
		PEL	200 PPM 590 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		STEL	250 PPM 735 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS

#### BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS

COMPONENT	CAS-NO.	PARAMETERS	VALUE	BIOLOGICAL SPECIMEN	BASIS
TETRAHYDROFURAN	109-99-9	TETRAHYDROFURAN	2 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). 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.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	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	- 17.8 °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	0.88
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



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**SECTION 10. STABILITY AND REACTIVITY**

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<b>REACTIVITY</b>	FORMATION OF PEROXIDES POSSIBLE. VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.
<b>CHEMICAL STABILITY</b>	THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	NO DATA AVAILABLE
<b>CONDITIONS TO AVOID</b>	WARMING. MOISTURE.
<b>INCOMPATIBLE MATERIALS</b>	OXIDIZING AGENTS, OXYGEN
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	PEROXIDES IN THE EVENT OF FIRE: SEE SECTION 5

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>ACUTE TOXICITY</b>	ACUTE TOXICITY ESTIMATE ORAL - 934.84 MG/KG (CALCULATION METHOD)  ACUTE TOXICITY ESTIMATE INHALATION - 4 H - 7.57 MG/L (CALCULATION METHOD) SYMPTOMS: POSSIBLE SYMPTOMS: MUCOSAL IRRITATIONS, COUGH, SHORTNESS OF BREATH, POSSIBLE DAMAGES: DAMAGE OF RESPIRATORY TRACT  ACUTE TOXICITY ESTIMATE DERMAL - 866.72 MG/KG (CALCULATION METHOD)  NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	NO DATA AVAILABLE
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	MIXTURE CAUSES SERIOUS EYE DAMAGE.
<b>RESPIRATORY OR SKIN SENSITISATION</b>	NO DATA AVAILABLE

**GERM CELL  
MUTAGENICITY**

NO DATA AVAILABLE

**CARCINOGENICITY**

EVIDENCE OF A CARCINOGENIC EFFECT.

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**

MIXTURE CAUSES DAMAGE TO ORGANS. - NERVOUS SYSTEM  
MIXTURE MAY CAUSE RESPIRATORY IRRITATION.  
MIXTURE MAY CAUSE DROWSINESS OR DIZZINESS.

**SPECIFIC TARGET ORGAN  
TOXICITY - REPEATED  
EXPOSURE**

NO DATA AVAILABLE

**ASPIRATION HAZARD**

NO DATA AVAILABLE

**ADDITIONAL  
INFORMATION**

RTECS: NOT AVAILABLE

CENTRAL NERVOUS SYSTEM DEPRESSION, COUGH, CHEST PAIN, DIFFICULTY IN BREATHING, EXPOSURE TO HIGH AIRBORNE CONCENTRATIONS CAN CAUSE ANESTHETIC EFFECTS. TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.  
OTHER DANGEROUS PROPERTIES CAN NOT BE EXCLUDED.

THIS SUBSTANCE SHOULD BE HANDLED WITH PARTICULAR CARE.

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.

STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE

**COMPONENTS**

**TETRAHYDROFURAN**

**ACUTE TOXICITY**

LD50 ORAL - RAT - MALE AND FEMALE - 1,650 MG/KG  
REMARKS: (ECHA)  
SYMPTOMS: IRRITATION OF MUCOUS MEMBRANES

LC50 INHALATION - RAT - MALE AND FEMALE - 4 H - > 16.9  
MG/L

(US-EPA)

SYMPTOMS: MUCOSAL IRRITATIONS, COUGH, SHORTNESS  
OF BREATH, POSSIBLE DAMAGES:,  
DAMAGE OF RESPIRATORY TRACT  
INHALATION: IRRITATING TO RESPIRATORY SYSTEM.

LD50 DERMAL - RAT - MALE AND FEMALE - > 2,000 MG/KG  
(OECD TEST GUIDELINE 402)

NO DATA AVAILABLE

**SKIN  
CORROSION/IRRITATION**

SKIN - RABBIT

RESULT: NO SKIN IRRITATION - 72 H  
(DRAIZE TEST)

REPEATED OR PROLONGED EXPOSURE MAY CAUSE SKIN  
IRRITATION AND DERMATITIS, DUE TO DEGREASING  
PROPERTIES OF THE PRODUCT.

**SERIOUS EYE  
DAMAGE/EYE IRRITATION**

EYES - RABBIT

RESULT: EYE IRRITATION

REMARKS: (ECHA)

(REGULATION (EC) NO 1272/2008, ANNEX VI)

**RESPIRATORY OR SKIN  
SENSITISATION**

LOCAL LYMPH NODE ASSAY (LLNA) MOUSE

RESULT: NEGATIVE

(OECD TEST GUIDELINE 429)

**GERM CELL  
MUTAGENICITY**

IN VIVO TESTS DID NOT SHOW MUTAGENIC EFFECTS  
IN VITRO MAMMALIAN CELL GENE MUTATION TEST  
CHINESE HAMSTER OVARY CELLS

RESULT: NEGATIVE

AMES TEST

SALMONELLA TYPHIMURIUM

RESULT: NEGATIVE

**CARCINOGENICITY**

SUSPECTED OF CAUSING CANCER.

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.

<b>REPRODUCTIVE TOXICITY</b>	NO TOXICITY TO REPRODUCTION
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	<p>INHALATION - MAY CAUSE RESPIRATORY IRRITATION. - RESPIRATORY SYSTEM</p> <p>MAY CAUSE DROWSINESS OR DIZZINESS. - NERVOUS SYSTEM</p> <p>ACUTE ORAL TOXICITY - IRRITATION OF MUCOUS MEMBRANES</p> <p>ACUTE INHALATION TOXICITY - MUCOSAL IRRITATIONS, COUGH, SHORTNESS OF BREATH, POSSIBLE DAMAGES: DAMAGE OF RESPIRATORY TRACT</p>
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	THE SUBSTANCE OR MIXTURE IS NOT CLASSIFIED AS SPECIFIC TARGET ORGAN TOXICANT, REPEATED EXPOSURE.
<b>ASPIRATION HAZARD</b>	NO ASPIRATION TOXICITY CLASSIFICATION

**N,N-DIMETHYLPYRIDIN-4-AMINE**

<b>ACUTE TOXICITY</b>	<p>LD50 ORAL - RAT - MALE - 140 MG/KG (US-EPA)</p> <p>SYMPTOMS: NAUSEA, VOMITING, DIARRHEA</p> <p>LC50 INHALATION - RAT - 4 H - 0.53 MG/L (US-EPA)</p> <p>SYMPTOMS: MUCOSAL IRRITATIONS, HEADACHE, NAUSEA, DROWSINESS, SOMNOLENCE, AFTER A LATENCY PERIOD: INHALATION MAY LEAD TO THE FORMATION OF OEDEMAS IN THE RESPIRATORY TRACT.</p> <p>LD50 DERMAL - RABBIT - MALE AND FEMALE - 90 MG/KG</p> <p>REMARKS: (ECHA)</p> <p>NO DATA AVAILABLE</p>
<b>SKIN CORROSION/IRRITATION</b>	NO DATA AVAILABLE
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	<p>EYES - RABBIT</p> <p>RESULT: CORROSIVE</p> <p>REMARKS: (ECHA)</p>
<b>RESPIRATORY OR SKIN SENSITISATION</b>	<p>BUEHLER TEST - GUINEA PIG</p> <p>RESULT: NEGATIVE</p> <p>(OECD TEST GUIDELINE 406)</p>
<b>GERM CELL MUTAGENICITY</b>	<p>AMES TEST</p> <p>ESCHERICHIA COLI/SALMONELLA TYPHIMURIUM</p> <p>RESULT: NEGATIVE</p> <p>IN VITRO MAMMALIAN CELL GENE MUTATION TEST</p> <p>MOUSE LYMPHOMA CELLS</p> <p>RESULT: NEGATIVE</p> <p>REMARKS: (ECHA)</p>

<b>CARCINOGENICITY</b>	NO DATA AVAILABLE
<b>REPRODUCTIVE TOXICITY</b>	NO DATA AVAILABLE
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	CAUSES DAMAGE TO ORGANS. - NERVOUS SYSTEM ACUTE ORAL TOXICITY - NAUSEA, VOMITING, DIARRHEA ACUTE INHALATION TOXICITY - MUCOSAL IRRITATIONS, HEADACHE, NAUSEA, DROWSINESS, SOMNOLENCE, AFTER A LATENCY PERIOD:, INHALATION MAY LEAD TO THE FORMATION OF OEDEMAS IN THE RESPIRATORY TRACT.
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	NO DATA AVAILABLE
<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE

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## SECTION 12. ECOLOGICAL INFORMATION

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<b>TOXICITY</b>	NO DATA AVAILABLE
<b>PERSISTENCE AND DEGRADABILITY</b>	NO DATA AVAILABLE
<b>BIOACCUMULATIVE POTENTIAL</b>	NO DATA AVAILABLE
<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED.
<b>OTHER ADVERSE EFFECTS</b>	NO DATA AVAILABLE
<b>COMPONENTS</b>	
<b>TETRAHYDROFURAN TOXICITY TO FISH</b>	FLOW-THROUGH TEST LC50 - PIMEPHALES PROMELAS (FATHEAD MINNOW) - 2,160 MG/L - 96 H (OECD TEST GUIDELINE 203)
<b>TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES</b>	STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA) - 3,485 MG/L - 48 H (OECD TEST GUIDELINE 202)
<b>TOXICITY TO BACTERIA</b>	STATIC TEST EC20 - ACTIVATED SLUDGE - CA. 800 MG/L - 0.5 H (OECD TEST GUIDELINE 209)

**N,N-DIMETHYLPYRIDIN-4-AMINE**

TOXICITY TO FISH	SEMI-STATIC TEST LC50 - DANIO RERIO (ZEBRA FISH) - 11.6 MG/L - 96 H (OECD TEST GUIDELINE 203)
TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES	STATIC TEST LC50 - DAPHNIA MAGNA (WATER FLEA) - > 100 MG/L - 48 H (OECD TEST GUIDELINE 202)
TOXICITY TO ALGAE	STATIC TEST ERC50 - PSEUDOKIRCHNERIELLA SUBCAPITATA - 4.22 MG/L - 72 H (OECD TEST GUIDELINE 201)
TOXICITY TO BACTERIA	STATIC TEST IC50 - TETRAHYMENA PYRIFORMIS - 527.09 MG/L - 60 H REMARKS: (ECHA)

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

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

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**SECTION 14. TRANSPORT INFORMATION**

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**DOT (US)**

PROPER SHIPPING NAME:	FLAMMABLE LIQUIDS, N.O.S. ( 4-(Dimethylamino)pyridine solution, 0.5 M in THF )
UN NUMBER:	1993
CLASS:	3
PACKING GROUP:	II
REPORTABLE QUANTITY (RQ):	1063 LBS
POISON INHALATION HAZARD:	NO

**IMDG**

PROPER SHIPPING NAME:	FLAMMABLE LIQUIDS, N.O.S. ( 4-(Dimethylamino)pyridine solution, 0.5 M in THF )
UN NUMBER:	1993
CLASS:	3
PACKING GROUP:	II

EMS-NO: F-E, S-E

**IATA**  
PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, N.O.S. ( 4-(Dimethylamino)pyridine solution, 0.5 M in THF )

UN NUMBER: 1993  
CLASS: 3  
PACKING GROUP: II

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## SECTION 15. REGULATORY INFORMATION

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**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.

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## SECTION 16. OTHER INFORMATION

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

H225 HIGHLY FLAMMABLE LIQUID AND VAPOUR.  
H302 HARMFUL IF SWALLOWED.  
H311 TOXIC IN CONTACT WITH SKIN.  
H318 CAUSES SERIOUS EYE DAMAGE.  
H335 MAY CAUSE RESPIRATORY IRRITATION.  
H336 MAY CAUSE DROWSINESS OR DIZZINESS.  
H351 SUSPECTED OF CAUSING CANCER.  
H370 CAUSES DAMAGE TO ORGANS (NERVOUS SYSTEM).  
H412 HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

### MSDS LEGEND

MW: MOLECULAR WEIGHT  
MF: MOLECULAR FORMULA  
VOC: VOLATILE ORGANIC COMPOUNDS  
ACGIH: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS

CAS: CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER  
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

**IMPORTANT:**

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