

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 36043  
NAME: 1,3-Butadiene solution, 15 wt. % in hexane  
SYNONYMS: Vinylethylene  
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  
SKIN IRRITATION (CATEGORY 2), H315  
GERM CELL MUTAGENICITY (CATEGORY 1B), H340  
CARCINOGENICITY (CATEGORY 1A), H350  
REPRODUCTIVE TOXICITY (CATEGORY 2), H361  
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3), CENTRAL NERVOUS SYSTEM, H336  
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE, INHALATION (CATEGORY 2), NERVOUS SYSTEM, H373

ASPIRATION HAZARD (CATEGORY 1), H304  
SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 2), H401  
LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 2), H411

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.
H304	MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.
H315	CAUSES SKIN IRRITATION.
H336	MAY CAUSE DROWSINESS OR DIZZINESS.
H340	MAY CAUSE GENETIC DEFECTS.
H350	MAY CAUSE CANCER.
H361	SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.
H373	MAY CAUSE DAMAGE TO ORGANS (NERVOUS SYSTEM) THROUGH PROLONGED OR REPEATED EXPOSURE IF INHALED.
H411	TOXIC 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.
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 + P310	IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER/DOCTOR.
P303 + P361 + P353	IF ON SKIN (OR HAIR): 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/DOCTOR IF YOU FEEL UNWELL.
P308 + P313	IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ ATTENTION.
P331	DO NOT INDUCE VOMITING.
P332 + P313	IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/ ATTENTION.
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.
P370 + P378	IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM TO EXTINGUISH.
P391	COLLECT SPILLAGE.

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) OR NOT COVERED BY GHS** MAY FORM EXPLOSIVE PEROXIDES.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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MF: C<sub>4</sub>H<sub>6</sub>  
MW: 54.09  
CAS-NO. 106-99-0  
PURITY: ≥ 99% (GC)

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>N-HEXANE</b>		
	FLAM. LIQ. 2; SKIN IRRIT. 2; REPR. 2; STOT SE 3; STOT RE 2; ASP. TOX. 1; AQUATIC ACUTE 2; AQUATIC CHRONIC 2; H225, H315, H361, H336, H373, H304, H401, H411 CONCENTRATION LIMITS: ≥ 5 %: STOT RE 2, H373; ≥ 20 %: STOT SE 3, H336;	>= 70 - < 90 %
<b>1,3-BUTADIENE</b>		
	FLAM. GAS 1; PRESS. GAS LIQUEFIED GAS; MUTA. 1B; CARC. 1A; H220, H280, H340, H350	>= 10 - < 20 %

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

**GENERAL ADVICE** CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF

DANGEROUS AREA.

<b>IF INHALED</b>	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.
<b>IN CASE OF SKIN CONTACT</b>	WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	FLUSH EYES WITH WATER AS A PRECAUTION.
<b>IF SWALLOWED</b>	DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. 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 DRY POWDER DRY SAND
	UNSUITABLE EXTINGUISHING MEDIA DO NOT USE WATER JET.

<b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	CARBON OXIDES COMBUSTIBLE.
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<b>ADVICE FOR FIREFIGHTERS</b>	WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.
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<b>FURTHER INFORMATION</b>	USE WATER SPRAY TO COOL UNOPENED CONTAINERS.
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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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<b>PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT</b>	USE PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION.
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<b>AND EMERGENCY PROCEDURES</b>	EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN LOW AREAS. FOR PERSONAL PROTECTION SEE SECTION 8.
<b>ENVIRONMENTAL PRECAUTIONS</b>	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.
<b>METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP</b>	CONTAIN SPILLAGE, AND THEN COLLECT WITH NON-COMBUSTIBLE ABSORBENT MATERIAL, (E.G. SAND, EARTH, DIATOMACEOUS EARTH, VERMICULITE) AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL / NATIONAL REGULATIONS (SEE SECTION 13).
<b>REFERENCE TO OTHER SECTIONS</b>	FOR DISPOSAL SEE SECTION 13.

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## SECTION 7. HANDLING AND STORAGE

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<b>PRECAUTIONS FOR SAFE HANDLING</b>	AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOUR OR MIST. USE EXPLOSION-PROOF EQUIPMENT.KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. 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. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE.  HEAT SENSITIVE. MOISTURE SENSITIVE. STENCH. SHOCK OR HEAT MAY DETONATE HANDLE AND STORE UNDER INERT GAS.  Store at 2 - 8 °C
<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

N-HEXANE	110-54-3	TWA	50 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	CENTRAL NERVOUS SYSTEM IMPAIRMENT EYE IRRITATION PERIPHERAL NEUROPATHY SUBSTANCES FOR WHICH THERE IS A BIOLOGICAL EXPOSURE INDEX OR INDICES DANGER OF CUTANEOUS ABSORPTION		
		TWA	50 PPM 180 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		TWA	500 PPM 1,800 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		THE VALUE IN MG/M3 IS APPROXIMATE.		
		PEL	50 PPM 180 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SKIN		
1,3-Butadiene solution, 15 wt. % in hexane	106-99-0	TWA	2 PPM	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		CANCER SUSPECTED HUMAN CARCINOGEN		
		TWA	1 PPM	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		SUBSTANCE LISTED; FOR MORE INFORMATION SEE OSHA DOCUMENT 29 CFR 1910.1051; 29 CFR 1910.19(1)		
		STEL	5 PPM	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		SUBSTANCE LISTED; FOR MORE INFORMATION SEE OSHA DOCUMENT 29 CFR 1910.1051; 29 CFR 1910.19(1)		
		SEE 1910.1051		
		POTENTIAL OCCUPATIONAL CARCINOGEN SEE APPENDIX A		
		PEL	1 PPM	OSHA SPECIFICALLY REGULATED CHEMICALS/CARCINOGENS

		<p>1910.1051  THIS SECTION APPLIES TO ALL OCCUPATIONAL EXPOSURES TO 1,3- BUTADIENE (BD), CHEMICAL ABSTRACTS SERVICE REGISTRY NO. 106-99-0, EXCEPT AS PROVIDED IN PARAGRAPH (A)(2) OF THIS SECTION. EXCEPT FOR THE RECORDKEEPING PROVISIONS IN PARAGRAPH (M)(1) OF THIS SECTION, THIS SECTION DOES NOT APPLY TO THE PROCESSING, USE, OR HANDLING OF PRODUCTS CONTAINING BD OR TO OTHER WORK OPERATIONS AND STREAMS IN WHICH BD IS PRESENT WHERE OBJECTIVE DATA ARE REASONABLY RELIED UPON THAT DEMONSTRATE THE WORK OPERATION OR THE PRODUCT OR THE GROUP OF PRODUCTS OR OPERATIONS TO WHICH IT BELONGS MAY NOT REASONABLY BE FORESEEN TO RELEASE BD IN AIRBORNE CONCENTRATIONS AT OR ABOVE THE ACTION LEVEL OR IN EXCESS OF THE STEL UNDER THE EXPECTED CONDITIONS OF PROCESSING, USE, OR HANDLING THAT WILL CAUSE THE GREATEST POSSIBLE RELEASE OR IN ANY PLAUSIBLE ACCIDENT. THIS SECTION ALSO DOES NOT APPLY TO WORK OPERATIONS, PRODUCTS OR STREAMS WHERE THE ONLY EXPOSURE TO BD IS FROM LIQUID MIXTURES CONTAINING 0.1% OR LESS OF BD BY VOLUME OR THE VAPORS RELEASED FROM SUCH LIQUIDS, UNLESS OBJECTIVE DATA BECOME AVAILABLE THAT SHOW THAT AIRBORNE CONCENTRATIONS GENERATED BY SUCH MIXTURES CAN EXCEED THE ACTION LEVEL OR STEL UNDER REASONABLY PREDICTABLE CONDITIONS OF PROCESSING, USE OR HANDLING THAT WILL CAUSE THE GREATEST POSSIBLE RELEASE. EXCEPT FOR LABELING REQUIREMENTS AND REQUIREMENTS FOR EMERGENCY RESPONSE, THIS SECTION DOES NOT APPLY TO THE STORAGE, TRANSPORTATION, DISTRIBUTION OR SALE OF BD OR LIQUID MIXTURES IN INTACT CONTAINERS OR IN TRANSPORTATION PIPELINES SEALED IN SUCH A MANNER AS TO FULLY CONTAIN BD VAPORS OR LIQUID. WHERE PRODUCTS OR PROCESSES CONTAINING BD ARE EXEMPTED UNDER PARAGRAPH (A)(2) OF THIS SECTION, THE EMPLOYER SHALL MAINTAIN RECORDS OF THE OBJECTIVE DATA SUPPORTING THAT EXEMPTION AND THE BASIS FOR THE EMPLOYER'S RELIANCE ON THE DATA, AS PROVIDED IN PARAGRAPH (M)(1) OF THIS SECTION</p> <p>1,3-BUTADIENE MEANS AN ORGANIC COMPOUND WITH CHEMICAL FORMULA <math>CH_2=CH-CH=CH_2</math> THAT HAS A MOLECULAR WEIGHT OF APPROXIMATELY 54.15 G/MOLE OSHA SPECIFICALLY REGULATED CARCINOGEN</p>			
		<table border="1"> <tr> <td data-bbox="703 1612 841 1692">STEL</td> <td data-bbox="841 1612 1045 1692">5 PPM</td> <td data-bbox="1045 1612 1373 1692">OSHA SPECIFICALLY REGULATED CHEMICALS/CARCINOGENS</td> </tr> </table>	STEL	5 PPM	OSHA SPECIFICALLY REGULATED CHEMICALS/CARCINOGENS
STEL	5 PPM	OSHA SPECIFICALLY REGULATED CHEMICALS/CARCINOGENS			

		<p>1910.1051  THIS SECTION APPLIES TO ALL OCCUPATIONAL EXPOSURES TO 1,3- BUTADIENE (BD), CHEMICAL ABSTRACTS SERVICE REGISTRY NO. 106-99-0, EXCEPT AS PROVIDED IN PARAGRAPH (A) (2) OF THIS SECTION. EXCEPT FOR THE RECORDKEEPING PROVISIONS IN PARAGRAPH (M)(1) OF THIS SECTION, THIS SECTION DOES NOT APPLY TO THE PROCESSING, USE, OR HANDLING OF PRODUCTS CONTAINING BD OR TO OTHER WORK OPERATIONS AND STREAMS IN WHICH BD IS PRESENT WHERE OBJECTIVE DATA ARE REASONABLY RELIED UPON THAT DEMONSTRATE THE WORK OPERATION OR THE PRODUCT OR THE GROUP OF PRODUCTS OR OPERATIONS TO WHICH IT BELONGS MAY NOT REASONABLY BE FORESEEN TO RELEASE BD IN AIRBORNE CONCENTRATIONS AT OR ABOVE THE ACTION LEVEL OR IN EXCESS OF THE STEL UNDER THE EXPECTED CONDITIONS OF PROCESSING, USE, OR HANDLING THAT WILL CAUSE THE GREATEST POSSIBLE RELEASE OR IN ANY PLAUSIBLE ACCIDENT. THIS SECTION ALSO DOES NOT APPLY TO WORK OPERATIONS, PRODUCTS OR STREAMS WHERE THE ONLY EXPOSURE TO BD IS FROM LIQUID MIXTURES CONTAINING 0.1% OR LESS OF BD BY VOLUME OR THE VAPORS RELEASED FROM SUCH LIQUIDS, UNLESS OBJECTIVE DATA BECOME AVAILABLE THAT SHOW THAT AIRBORNE CONCENTRATIONS GENERATED BY SUCH MIXTURES CAN EXCEED THE ACTION LEVEL OR STEL UNDER REASONABLY PREDICTABLE CONDITIONS OF PROCESSING, USE OR HANDLING THAT WILL CAUSE THE GREATEST POSSIBLE RELEASE. EXCEPT FOR LABELING REQUIREMENTS AND REQUIREMENTS FOR EMERGENCY RESPONSE, THIS SECTION DOES NOT APPLY TO THE STORAGE, TRANSPORTATION, DISTRIBUTION OR SALE OF BD OR LIQUID MIXTURES IN INTACT CONTAINERS OR IN TRANSPORTATION PIPELINES SEALED IN SUCH A MANNER AS TO FULLY CONTAIN BD VAPORS OR LIQUID. WHERE PRODUCTS OR PROCESSES CONTAINING BD ARE EXEMPTED UNDER PARAGRAPH (A)(2) OF THIS SECTION, THE EMPLOYER SHALL MAINTAIN RECORDS OF THE OBJECTIVE DATA SUPPORTING THAT EXEMPTION AND THE BASIS FOR THE EMPLOYER'S RELIANCE ON THE DATA, AS PROVIDED IN PARAGRAPH (M)(1) OF THIS SECTION  1,3-BUTADIENE MEANS AN ORGANIC COMPOUND WITH CHEMICAL FORMULA CH<sub>2</sub>=CH-CH=CH<sub>2</sub> THAT HAS A MOLECULAR WEIGHT OF APPROXIMATELY 54.15 G/MOLE OSHA SPECIFICALLY REGULATED CARCINOGEN</p>		
		PEL	1 PPM 2.2 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SEE SECTION 5201		
		STEL	5 PPM 11 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS
		SEE SECTION 5201		



**BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS**

COMPONENT	CAS-NO.	PARAMETERS	VALUE	BIOLOGICAL SPECIMEN	BASIS
N-HEXANE	110-54-3	2,5-HEXANEDIONE	0.4 MG/L	URINE	ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)
	REMARKS	END OF SHIFT AT END OF WORKWEEK			
1,3-Butadiene solution, 15 wt. % in hexane	106-99-0	1,2 DIHYDROXY4-(NACETYLCYSTEINYL)-BUTANE	2.5 MG/L	URINE	ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)
		END OF SHIFT (AS SOON AS POSSIBLE AFTER EXPOSURE CEASES)			
		MIXTURE OF N-1 AND N2(HYDROXYBUTENYL)VALINE	2.5PICOMOLES PER GRAM HEMOGLOBIN	HEMOGLOBIN (HB) ADDUCTS IN BLOOD	ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)
		NOT CRITICAL			

**EXPOSURE CONTROLS****APPROPRIATE ENGINEERING CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT****EYE/FACE PROTECTION**

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

**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: FLUORINATED RUBBER  
MINIMUM LAYER THICKNESS: 0.7 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED: VITOJECT (KCL 890, SIZE M)

SPLASH CONTACT  
MATERIAL: FLUORINATED RUBBER  
MINIMUM LAYER THICKNESS: 0.7 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED: VITOJECT (KCL 890, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE 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** COMPLETE SUIT PROTECTING AGAINST CHEMICALS, FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING, AND THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION** WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

**CONTROL OF ENVIRONMENTAL EXPOSURE** PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Colorless liquid
ODOUR	NO DATA AVAILABLE

ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
BOILING POINT	
FLASH POINT	-76 °C
EVAPORATION 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	0.68
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
<b>OTHER SAFETY INFORMATION</b>	NO DATA AVAILABLE

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## SECTION 10. STABILITY AND REACTIVITY

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<b>REACTIVITY</b>	NO DATA AVAILABLE
<b>CHEMICAL STABILITY</b>	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	VAPOURS MAY FORM EXPLOSIVE MIXTURE WITH AIR.
<b>CONDITIONS TO AVOID</b>	HEAT, FLAMES AND SPARKS.
<b>INCOMPATIBLE MATERIALS</b>	OXIDIZING AGENTS, METALS, COPPER ALLOYS, COPPER, OXYGEN, HALOGENS, METAL OXIDES, CARBIDES
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - CARBON OXIDES OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE 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>	NO DATA AVAILABLE
	INHALATION: NO DATA AVAILABLE
	DERMAL: NO DATA AVAILABLE
	NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	NO DATA AVAILABLE
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	NO DATA AVAILABLE
<b>RESPIRATORY OR SKIN SENSITISATION</b>	NO DATA AVAILABLE
<b>GERM CELL MUTAGENICITY</b>	NO DATA AVAILABLE
<b>CARCINOGENICITY</b>	
IARC:	1 - GROUP 1: CARCINOGENIC TO HUMANS (1,3-BUTADIENE)
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 DATA AVAILABLE
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	NO DATA AVAILABLE
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	NO DATA AVAILABLE
<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE
<b>ADDITIONAL INFORMATION</b>	RTECS: NOT AVAILABLE
	TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
	STOMACH - IRREGULARITIES - BASED ON HUMAN EVIDENCE

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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>	AN ENVIRONMENTAL HAZARD CANNOT BE EXCLUDED IN THE EVENT OF UNPROFESSIONAL HANDLING OR DISPOSAL. TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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<b>WASTE TREATMENT METHODS</b>	
<b>PRODUCT</b>	OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.

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**SECTION 14. TRANSPORT INFORMATION**

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<b>DOT (US)</b>	
PROPER SHIPPING NAME:	FLAMMABLE LIQUIDS, N.O.S. (N-HEXANE, 1,3-BUTADIENE)
UN NUMBER:	1993
CLASS:	3
PACKING GROUP:	II
REPORTABLE QUANTITY (RQ):	66 LBS
POISON INHALATION HAZARD:	NO
<b>IMDG</b>	

PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, N.O.S. (N-HEXANE, 1,3-BUTADIENE)  
UN NUMBER: 1993  
CLASS: 3  
PACKING GROUP: II  
EMS-NO: F-E, S-E

**IATA**

PROPER SHIPPING NAME: FLAMMABLE LIQUIDS, N.O.S. (N-HEXANE, 1,3-BUTADIENE)  
UN NUMBER: 1993  
CLASS: 3  
PACKING GROUP: II

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**SECTION 15. REGULATORY INFORMATION**

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**SARA 302 COMPONENTS** NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

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

	CAS NO.	REVISION DATE
N-HEXANE	110-54-3	07/01/2007
1,3-Butadiene solution, 15 wt. % in hexane	106-99-0	07/01/2007

**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.

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS NO.	REVISION DATE
N-HEXANE	110-54-3	07/01/2007
1,3-Butadiene solution, 15 wt. % in hexane	106-99-0	07/01/2007

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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.  
H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.  
H315 CAUSES SKIN IRRITATION.  
H336 MAY CAUSE DROWSINESS OR DIZZINESS.  
H340 MAY CAUSE GENETIC DEFECTS.  
H350 MAY CAUSE CANCER.  
H361 SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.

H373 MAY CAUSE DAMAGE TO ORGANS (CENTRAL NERVOUS SYSTEM)  
THROUGH PROLONGED OR REPEATED EXPOSURE.  
H411 TOXIC 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 SERIVE REGISTRY NUMBER  
OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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VERSION: 3.1

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