## G.J. CHEMICAL CO., INC -- LIGROINE, (SEE SUPPL.) -- 6810-00-051-5872 Product ID:LIGROINE, (SEE SUPPL.) MSDS Date:11/20/1998 FSC:6810 NIIN:00-051-5872 Status Code:A MSDS Number: CLGYX === Responsible Party === Company Name: G.J. CHEMICAL CO., INC Address:370-376 ADAMS STREET City:NEWARK State:NJ ZIP:07114 Country:US Info Phone Num:973-589-1450 Emergency Phone Num:973-589-1450 Resp. Party Other MSDS Num.:#PX0430 CAGE:UO475 === C ontractor Identification === Company Name: ALLIANCE CHEMICAL INC Address:3 OAKMOOR Box:79 City:ROUND ROCK State:TX ZIP:78680 Country:US Phone:512-365-6838 Contract Num:SP0450-01-M-ZB86 CAGE:1LT50 Company Name: G.J. CHEMICAL CO., INC Address:370-376 ADAMS STREET Box:City:NEWARK State:NJ ZIP:07114 Country:US Phone:973-589-1450 CAGE:UO475 ====== Composition/Information on Ingredients ======== Ingred Name: 2-METHYLPENTANE

CAS:107-83-5 RTECS #:SA2985000

Minumum % Wt:1.

Maxumum % Wt:5.

ngred Name:PENTANE

CAS:109-66-0

RTECS #:RZ9450000 Minumum % Wt:60. Maxumum % Wt:80.

OSHA PEL:1800 MG/M3;1000 PPM

OSHA STEL:2250 MG/M3

ACGIH TLV:1770 MG/M3;600 PPM ACGIH STEL:2210 MG/M3;750 PPM

Ingred Name: CYCLOPENTANE

CAS:287-92-3

RTECS #:GY2390000

Minumum % Wt:1.

Maxumum % Wt:5.

OSHA PEL:1720 MG/M3; 600PPM ACGIH TLV:1720 MG/M3;600 PPM

Ingred Name: BUTANE, 2,2-DIMETHYL-

CAS:75-83-2

RTECS #:EJ9300000

Minumum % Wt:1.

Maxumum % Wt:5.

Ingred Name:2,3-DIMETHYLBUTANE

CAS:79-29-8

RTECS #:EJ9350000

Mi

numum % Wt:1.

Maxumum % Wt:5.

Ingred Name: PENTANE, 3-METHYL-

CAS:96-14-0

Minumum % Wt:5.

Maxumum % Wt:10.

Ingred Name:2-METHYLBUTANE

CAS:78-78-4

RTECS #:EK4430000

Minumum % Wt:1.

Maxumum % Wt:5.

========== Hazards Identification =================

Routes of Entry: Inhalation:YES Skin:UNKNOWN Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:OVERVIEW: EXTREMELY FLAMMABLE LIQUID

AND VAPOR. HARMFUL OR FATAL IF SWALLOWED. VA

$D \cap D$	HARMFUI	IDDIT	ATIMO
PUR	HARIMEUI	IRRII	$A \cap A \cap A$

TO SKIN, EYES AND MUCOUS MEMBRANES. MAY CAUSE DAMAGE TO LUNGS, THORAX, CENTRAL NERVOUS SYSTEM, AND KIDNEYS.

Explanation of Carcinogenicity:THE MATERIAL IS NOT LISTED (IARC, NTP, OSHA) AS CANCER CAUSING AGENT.

Effects of Overexposure:HARMFUL IF INHALED OR SWALLOWED. IRRITATING ON CONTACT WITH SKIN, EYES OR MUCOUS MEMBRANES. VAPOR IRRITATING TO EYES AND RESPIRATORY PASSAGES. MAY CAUSE KIDNEY DAMAGE, NAUSEA, DIZZINESS, CENTRAL NER VOUS SYSTEM DEPRE

SSION, RESPIRATORY AND CARDIAC EFFECTS.

Medical Cond Aggravated by Exposure: HEART, KIDNEY, AND RESPIRATORY CONDITIONS.

First Aid:GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE. SKIN: IMMEDIATELY FLUSH THOROUGHLY WITH LARGE AMOUNTS OF WATER. EYES: IMMEDIATELY FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. INHALATION: REMOVE TO FRESH AIR; GIVE ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED.

INGESTION: CALL A PHYSICIAN IMMEDIATELY.

ONLY INDUCE VOMITING AT THE INSTRUCTIONS OF A PHYSICIAN. NEVER GIVE ANYTHING BY MOU TH TO AN UNCONSCIOUS PERSON.

============ Fire Fighting Measures ===============

Flash Point:=-45.4C, -50.F

Lower Limits:1.10 Upper Limits:5.90

Extinguishing Media: "ALCOHOL" FOAM, DRY CHEMICAL, CO2.

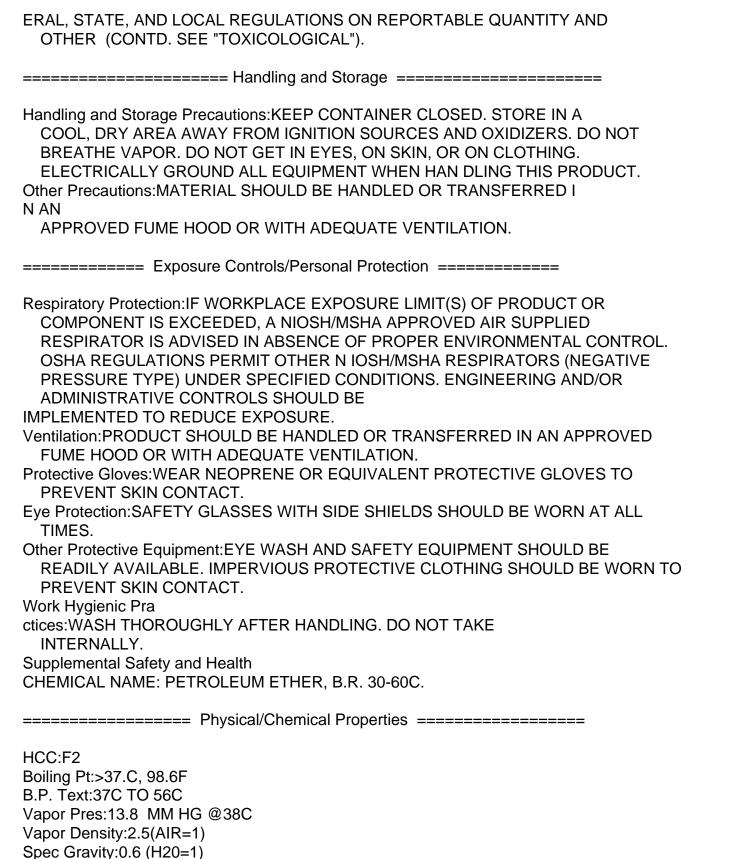
Fire Fighting Procedures: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:THERMAL DECOMPOSITION PR ODUCES TOXIC

FUMES. VAPOR CAN TRAVEL DISTANCES TO IGNITION SOURCE AND FLASH BACK.

======== Accidental Release Measures ===========

Spill Release Procedures:EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL. WEAR SUITABLE PROTECTIVE EQUIPMENT. ELIMINATE ANY IGNITION SOURCES UNTIL THE AREA IS DETERMINED TO BE FREE FROM EXPLOSION OR FIRE HAZARDS. CONTAIN THE R ELEASE AND ELIMINATE ITS SOURCE. TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL. COMPLY WITH FED



Evaporation Rate & Reference:>1 (BUAC = 1)

Appearance and Odor: COLORLESS LIQUID, GASOLINE-LIKE ODOR.

Solubility in Water: INSOLUBLE.

Percent Volatiles by

Stability Indicator/Materials to Avoid:YES OXIDIZERS. Stability Condition to Avoid:HEAT; CONTACT WITH IGNITION SOURCES. Hazardous Decomposition Products:COX, HYDROCARBONS. Conditions to Avoid Polymerization:DOES NOT OCCUR.			
========= Toxicological Information ==========			
Toxicological Information:NONE ESTABLISHED. (CONTD. FROM "SPILL RELEASE") REGULATORY DATA. E.M. SCIENCE RECOMMENDS SPILL-X			
ABSORBENT AGENTS FOR VARIOUS TYPES OF SPILLS. ADDITIONAL INFORMATION ON THE SPILL-X PRODUCTS CAN BE PRO VIDED THROUGH THE EM SCIENCE TECHNICAL SERVICE DEPARTMENT 609-354-9200. THE FOLLOWING EM SCIENCE SPILL-X ABSORBENT IS RECOMMENDED FOR THIS PRODUCT: SX0863, SOLVENT SPILL TREATMENT KIT.			
======= Disposal Considerations ==========			
Waste Disposal Methods:EPA WASTE NUMBERS: D001. TREATMENT: INCINERATION, FUELS BLENDING OR RECYCLE. CONTACT YOUR LOC AL PERMITTED WASTE DISPOSAL SITE (TSD) FOR PERMISSIBLE TREATMENT SITES. ALWAYS CONTACT A PERMITTED WASTE DI SPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS.			
========= MSDS Transport Information ===========			
Transport Information:DOT PROPER SHIPPING NAME: PETROLEUM SPIRIT.			
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Federal Regulatory Information:TSCA INVENTORY: THIS PRODUCT IS A "MIXTURE". TH E CAS NUMBERS OF ALL COMPONENTS ARE LISTED ON THE TSCA INVENTORY.			
============ Other Information ===============			
Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should			

======== Stability and Reactivity Data ==========

Volume:100

seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.