1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: EM SCIENCE
A DIVISION OF EM INDUSTRIES
P.O. BOX 70
480 DEMOCRAT RD.
GIBBSTOWN, N.J. 08027

PREPARATION DATE: 03/01/91
DATE MSDS PRINTED: JUN 11, 1992

INFORMATION PHONE NUMBER: 609-354-9200
HOURS: MON. TO FRI. 8:30-5
CHEMTREC EMERGENCY NUMBER: 800-424-9300
HOURS: 24 HRS A DAY

CATALOG NUMBER(S):
NX0615  NX0616

CHEMICAL NAME: NITROMETHANE
TRADE NAME: [NITROCARBOL]
CHEMICAL FAMILY: NITROPARAFFIN
FORMULA: CH3NO2

MOLECULAR WEIGHT: 61.04

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS #</th>
<th>APPR %</th>
</tr>
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<tbody>
<tr>
<td>NITROMETHANE</td>
<td>75-52-5</td>
<td>100%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED OR SWALLOWED.
FORMS SHOCK SENSITIVE COMPOUNDS WITH AMINES AND STRONG ALKALIES.
MAY CAUSE DAMAGE TO KIDNEYS AND LIVER.

APPEARANCE: CLEAR, COLORLESS LIQUID
WITH DISAGREEABLE ODOR

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

SYMPTOMS OF EXPOSURE:
VAPOR INHALATION CAN CAUSE HEADACHE, NAUSEA, NARCOSIS.
MAY BE HARMFUL IF INHALED OR SWALLOWED.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE DAMAGE TO KIDNEYS AND LIVER.
MEDICAL COND. AGGRAVATED BY EXPOSURE:
KIDNEY AND LIVER CONDITIONS.
ROUTES OF ENTRY:
INHALATION; INGESTION
CARCINOGENICITY:
The material is not listed as a cancer causing agent.

4. FIRST AID MEASURES

EMERGENCY FIRST AID:
GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.
SKIN: WASH THOROUGHLY WITH SOAP AND 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: IF CONSCIOUS, DRINK WATER AND INDUCE VOMITING IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.
REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE.

5. FIRE FIGHTING MEASURES

FLASH POINT (F): 96F (CC)
FLAMMABLE LIMITS LEL (%): 7.30
FLAMMABLE LIMITS UEL (%): N/A
EXTINGUISHING MEDIA:
DO NOT USE DRY CHEMICAL. USE CO2, FOAM OR WATER SPRAY.
FIRE FIGHTING PROCEEDURES:
WEAR SELF-CONTAINED BREATHING APPARATUS.
FIRE & EXPLOSION HAZARDS:
DANGEROUS FIRE AND EXPLOSIVE HAZARD.

6. ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE:
EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL.
WEAR SUITABLE PROTECTIVE EQUIPMENT LISTED UNDER EXPOSURE / PERSONAL PROTECTION.
ELIMINATE ANY IGNITION SOURCES UNTIL THE AREA IS DETERMINED TO BE FREE FROM EXPLOSION OR FIRE HAZARDS.

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CONTAIN THE RELEASE AND ELIMINATE ITS SOURCE, IF THIS CAN BE DONE WITHOUT RISK.
TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL AS DESCRIBED UNDER DISPOSAL.
COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REPORTING RELEASES. REFER TO REGULATORY INFORMATION FOR REPORTABLE QUANTITY AND OTHER REGULATORY DATA.
THE FOLLOWING EM SCIENCE SPILL-X ABSORBENT IS RECOMMENDED FOR THIS PRODUCT:

SX0363  SOLVENT SPILL TREATMENT KIT

7. HANDLING AND STORAGE

HANDLING & STORAGE:
KEEP CONTAINER TIGHTLY CLOSED.
STORE IN A COOL, DRY AREA AWAY FROM IGNITION SOURCES AND OXIDIZERS.
DO NOT BREATHE VAPOR.
DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.
ELECTRICALLY GROUND ALL EQUIPMENT WHEN HANDLING THIS PRODUCT.
RETAINED RESIDUE MAY MAKE EMPTY CONTAINERS HAZARDOUS; USE CAUTION!

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

VENTILATION, RESPIRATORY PROTECTION, PROTECTIVE CLOTHING, EYE PROTECTION MATERIAL MUST BE HANDLED OR TRANSFERRED IN AN APPROVED FUME HOOD OR WITH EQUIVALENT VENTILATION.
PROTECTIVE GLOVES SHOULD BE WORN TO PREVENT SKIN CONTACT (RUBBER OR EQUIVALENT).
SAFETY GLASSES WITH SIDE SHIELDS SHOULD BE WORN AT ALL TIMES.
RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE TLV/PEL), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING AND/OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.
WORK / HYGENIC PRACTICES:
WASH THOROUGHLY AFTER HANDLING.
DO NOT TAKE INTERNALLY.
EYE WASH AND SAFETY EQUIPMENT SHOULD BE READILY AVAILABLE.

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EXPOSURE GUIDELINES

OSHA - PEL:

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<th>COMPONENT</th>
<th>TWA</th>
<th>STEL</th>
<th>CL</th>
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<td>PPM</td>
<td>MG/M3</td>
<td>PPM</td>
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<td>NITROMETHANE</td>
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ACGIH - TLV:

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<tr>
<td>NITROMETHANE</td>
<td>(100)</td>
<td>(250)</td>
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</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (C 760 MMHG) : 101
MELTING POINT (C) : N/A
SPECIFIC GRAVITY (H2O = 1) : 1.13
VAPOR PRESSURE (MM HG) : 27.3 20C
PERCENT VOLATILE BY VOL (%) : 100
VAPOR DENSITY (AIR = 1) : 2.1
EVAPORATION RATE (BUAC = 1) : 1.139
SOLUBILITY IN WATER (%) : 10.5
APPEARANCE : CLEAR, COLORLESS LIQUID
WITH DISAGREEABLE ODOR

10. STABILITY AND REACTIVITY

STABILITY : YES
HAZARDOUS POLYMERIZATION:
DOES NOT OCCUR

HAZARDOUS DECOMPOSITION:

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NOX, COX

CONDITIONS TO AVOID......:
HEAT; CONTACT WITH IGNITION SOURCES.

MATERIALS TO AVOID.......:
( )WATER
( )ACIDS
( )BASES
( )CORROSIVES
( )OXIDIZERS
( )OTHER :

AMINES, ALKALIES, METALIC OXIDES, HYDROCARBONS, COMBUSTIBLES

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

- ORL-RAT LD50: 940 MG/KG
  IHL-MKY LC50: 1000 PPM

TOXICOLOGICAL FINDINGS:
NONE
CITED IN REGISTRY OF TOXIC EFFECTS OF SUBSTANCES (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA WASTE NUMBERS: 0001
TREATMENT:
INCINERATION, FUELS BLENDING OR RECYCLE. CONTACT YOUR LOCAL
PERMITTED WASTE DISPOSAL SITE (TSD) FOR PERMISSIBLE TREATMENT
SITES.
ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE
COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME...:
NITROMETHANE
DOT ID NUMBER..................: UN1261

14. REGULATORY INFORMATION

TSCA INVENTORY..............:
MSDS (CONTINUED) - NX0615
THE CAS NUMBER OF THIS PRODUCT IS LISTED ON THE TSCA INVENTORY.

<table>
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<tr>
<th>COMPONENT</th>
<th>SARA EHS (302)</th>
<th>SARA EHS TPQ (LBS)</th>
<th>CERCLA RQ (LBS)</th>
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<tr>
<th>COMPONENT</th>
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<tr>
<td>Y</td>
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15. OTHER INFORMATION

COMMENTS:
NONE

NFPA HAZARD RATINGS:
- HEALTH 1
- FLAMMABILITY 3
- REACTIVITY 3
- SPECIAL HAZARDS:

REVISION HISTORY:
10/01/84  10/24/84  10/27/87  03/23/88

- = REvised SECTION
N/A = NOT AVAILABLE
N/E = NONE ESTABLISHED

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