

SECTION I - GENERAL INFORMATION
 CHEMICAL NAME & SYNONYMS (I/A) TRADE NAME & SYNONYMS
 5 IN 1 FUEL OIL ADDITIVE
 CHEMICAL FAMILY: AROMATIC PETROLEUM DISTILLATES FORMULA X <-- MIXTURE
 MANUFACTURER'S NAME: RESEARCH DIV. OF NCH CORP.
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 PREPARED BY: TOLLEY/CHEMIST PRODUCT CODE NUMBER: 0024 EMERGENCY TELEPHONE NUMBER: 214-438-1381

S= OIL MIST VALUES
 HAZARD-----> TLV----> PEL---->
 STEL(TWA)*--> CAS#-->
 SECTION IIA - NON-HAZARDOUS INGREDIENTS
 NON-HAZARDOUS INGREDIENT NAMES AND CAS NUMBERS ARE PROTECTED UNDER NJ TRADE SECRET REGISTRY # 409363 -5404P

SECTION II - HAZARDOUS INGREDIENTS
 HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

SECTION III - PHYSICAL DATA

BOILING PT. (F)	320	SPEC. GRAVITY (H2O=1)	0.975
VAPOR PR. (MM HG)	< 1	COLOR	AMBER OIL
VAPOR DENSITY	5	ODOR	PETROLEUM
PH. @ 100%	N/A	CLARITY	HAZY
% VOLATILE BY VOL	78	EVAPORATION RATE (BU A/C = 1)	<.01
H2O SOLUBILITY	APPRECIABLE		
VISCOSITY	VISCOUS		

SECTION II - HAZARDOUS INGREDIENTS (CONTINUED)

CHEMICAL NAME (INGREDIENTS): PETROLEUM NAPHTHA	HAZARD-----> COMB/IRR STEL(TWA)*--> N/E	TLV----> 5MG/M3\$ 1. CAS#--> 64742-94-5	PEL----> 5MG/M3\$ 2.
DICHLOROBENZENE	HAZARD-----> COMB/IRR STEL(TWA)*--> N/E	TLV----> 50PPM 1. CAS#--> 95-50-1	PEL----> 50PPM 2.
OLENE GLYCOL	HAZARD-----> IRRITANT STEL(TWA)*--> N/E	TLV----> 25PPM 1. CAS#--> 107-41-5	PEL----> 25PPM 2.
AFFINIC OIL	HAZARD-----> IRRITANT STEL(TWA)*--> N/E	TLV----> 5MG/M3\$ 1. CAS#--> 8012-95-1	PEL----> 5MG/M3\$ 2.
HTHALENE	HAZARD-----> COMB/IRR STEL(TWA)*--> 15MG/M3	TLV----> 10PPM 1. CAS#--> 91-20-3	PEL----> 10PPM 2.

SECTION IV - FIRE AND EXPLOSION HAZARD
 FLASH POINT: 145 F. FLAMMABLE LIMITS PETROLEUM NAPHTHA 1.8 UEL 11.7
 T.C.C. DRY WATER
 EXTINGUISHING MEDIA "ALCOHOL" X <--FOAM X <--FOAM X <--CD2 X <--CHEMICAL X <--SPRAY <--OTHER
 SPECIAL FIRE FIGHTING PROCEDURES
 WEAR FULL PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS.

1. FIRE EXPOSED CONTAINERS WITH WATER. DO NOT USE WATER ON BURNING POOL PRODUCT AS FROTHING MAY OCCUR.
 2. MAJOR FIRE AND EXPLOSION HAZARDS
 VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS OR AREAS INADEQUATELY VENTILATED. VAPORS MAY ALSO TRAVEL ALONG THE GROUND TO BE INHALED AT LOCATIONS DISTANT FROM THE HANDLING SITE.

IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

HAZARD RATING (0=INSIGNIFICANT;1=SLIGHT;2=MODERATE;3=HIGH;4=EXTREME):
 <--HEALTH 2 <--FLAMMABILITY 0 <--REACTIVITY <--SPECIAL

EYE CONTACT:
 RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING WITH PLENTY OF WATER FOR SEVERAL MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS.
 SKIN CONTACT:
 WASH AFFECTED AREAS WITH PLENTY OF SOAP AND WATER FOR SEVERAL MINUTES. REMOVE AND CLEAN CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS.

SECTION V - HEALTH HAZARD DATA

INGESTION:
 IMMEDIATELY GIVE 3 TO 4 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING. IF VOMITING OCCURS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.
 NOTES TO PHYSICIAN:
 ASPIRATION OF THIS MATERIAL INTO THE LUNGS DURING INGESTION OR VOMITING CAN CAUSE PNEUMONITIS AND CAN BE FATAL.

THRESHOLD LIMIT VALUE:
 ESTABLISHED FOR MIXTURE. SEE SECTION II.

TOXICITY STUDIES INDICATE HIGH DOSAGES OF ORTHO DICHLOROBENZENE PRODUCE LIVER AND KIDNEY INJURY IN LABORATORY ANIMALS. 4.

EFFECTS OF OVEREXPOSURE:
 - ACUTE - (SHORT TERM EXPOSURE)
 SKIN CONTACT: MAY CAUSE IRRITATION, SWELLING, ALLERGIC REACTION, REDNESS, BURNING AND DERMATITIS. EYE CONTACT: MAY CAUSE IRRITATION, PAIN, REDNESS, NEURALGIA, NEURAL INJURY.
 INHALATION: MAY CAUSE IRRITATION OF THE RESPIRATORY TRACT, BRONCHITIS, SIBLY LEADING TO BRONCHITIS OR PNEUMONITIS, HEADACHE, NAUSEA, DIZZINESS, STERIC EFFECTS, FATIGUE, CENTAL NERVOUS SYSTEM EFFECTS.
 INGESTION: MAY CAUSE IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA, VOMITING, DIZZINESS, DIARRHEA, LOSS OF CONSCIOUSNESS. INGESTION AND SUBSEQUENT VOMITING CAN LEAD TO ASPIRATION INTO LUNGS WHICH CAN CAUSE PNEUMONITIS AND CAN BE FATAL.

SECTION VI - TOXICITY INFORMATION

- CHRONIC - (LONG TERM EXPOSURE)
 SKIN CONTACT MAY AGGRAVATE EXISTING DERMATITIS AND MAY CAUSE SKIN SENSITIZATION IN A SMALL PORTION OF PEOPLE.
 TARGET ORGANS: LIVER AND KIDNEYS.

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:
 IARC <--YES NTP <--YES OSHA <--YES ACGIH <--YES OTHER <--YES
 X<--NO NTP X<--NO OSHA X<--NO ACGIH X<--NO OTHER X<--NO

PRIMARY ROUTE OF ENTRY: X<-- INHALATION <-- INGESTION <-- ABSORPTION
 AGENCY & FIRST AID PROCEDURES
 INHALATION:
 MOVE FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY

TOXICITY STUDIES INDICATE HIGH DOSAGES OF ORTHO DICHLOROBENZENE PRODUCE LIVER AND KIDNEY INJURY IN LABORATORY ANIMALS. 4.

PETROLEUM NAPHTHA	IVN-MAN LD50: 27MG/KG PUL 3.
	IPR-MAN LD50: 2500MG/KG 3.
	IHL-HMN LCL: 3PPH/5M 3.
O-DICHLOROBENZENE	ORL-RAT LD50: 500MG/KG 3.
	IHL-RAT LCL: 821PPM/7H 3.
HEXYLENE GLYCOL	ORL-RAT LD50: 3700MG/KG 3.
	SKN-RBT 500MG/24H MOD. 3.
NAPHTHALENE	ORL-CHD LD50: 100MG/KG 3.

(CONTINUED) - SECTION VI - TOXICITY INFORMATION

LD: 400MG/KG 3.
OMG MILD 3.
EUM OIL
LD 50: 6000 MG/KG 4.

SECTION VII - REACTIVITY DATA

STABILITY | X <--STABLE <--UNSTABLE | CONDITIONS TO AVOID
STORAGE AT HIGH TEMPERATURES

COMPATIBILITY (MATERIALS TO AVOID):
ACIDS, STRONG BASES, HOT ALUMINUM OR ALUMINUM ALLOYS,
FLAME, AND STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS
OF CARBON, OXIDES OF SULPHUR, SMOKE, CHLORINE.

HAZARDOUS REACTIONS | WILL NOT MAY | CONDITIONS TO AVOID
OXIDIZATION | X <--OCCUR <--OCCUR | N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
ELIMINATE ALL SOURCES OF IGNITION. SMALL SPILLS: TAKE UP WITH ABSORBANT
PLACE IN LABELED CONTAINER FOR DISPOSAL. LARGE SPILLS: EVACUATE AREA
PROTECTED PERSONNEL. STOP LEAK AND CONTAIN SPILL. REMOVE VIA VACUUM
SUCKER. TAKE UP REMAINDER WITH ABSORBANT AND PLACE IN LABELED CONTAINER
FOR DISPOSAL. DO NOT FLUSH TO SEWER.

DISPOSAL METHOD(S):
IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

(CONTINUED) - SECTION VIII - SPILL OR LEAK PROCEDURES

NEUTRALIZING AGENT:
N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION:
GENERAL EXHAUST IS ADEQUATE UNDER NORMAL CIRCUMSTANCES.

RESPIRATORY PROTECTION:
TYPICAL USE DOES NOT REQUIRE RESPIRATORY PROTECTION, HOWEVER, IN
SITUATIONS WHERE EXPOSURE EXCEEDS OSHA STANDARDS USE A NIOSH APPROVED
RESPIRATOR.

GLOVE PROTECTION:
PVA GLOVES.

EYE PROTECTION:
SAFETY GLASSES IF METHOD OF USE PRESENTS THE
LIKELIHOOD OF EYE CONTACT.

OTHER PROTECTION:
WORK CLOTHING AS NECESSARY TO AVOID SKIN CONTACT.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE | INDOOR HEATED REFRIGERATED OUTDOOR
MAX: 120 F. MIN: 32 F. | X X

PRECAUTIONS TO BE TAKEN IN HANDLING & STORING
STORE AT MODERATE TEMPERATURES.

(CONTINUED) - SECTION X - STORAGE AND HANDLING INFORMATION

DO NOT CUT, WELD, BRAZE, OR SOLDER EVEN EMPTY
CONTAINERS AS THEY MAY CONTAIN PRODUCT RESIDUE
WHICH CAN BE EXPLOSIVE.

PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE
LABEL BEFORE USING THIS PRODUCT.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME	C.A.S NUMBER	UPPER % LIMIT
CHLOROBENZENE	95-50-1	10
XYLENE	91-20-3	10

INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF
TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF
1980 AND 40 CFR PART 372.
IF THIS PRODUCT (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT
FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE
INDUSTRIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS
MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED
AND LABELED FOR MAINTAINING MOTOR VEHICLES.

CALIFORNIA PROPOSITION 65

WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) KNOWN TO
THE STATE OF CALIFORNIA TO CAUSE (1) CANCER OR (2) BIRTH DEFECTS OR
OTHER REPRODUCTIVE HARM:
(1).

SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

(CONTINUED) - SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

LABELS | LIMITED QTY
UNIT CONTAINER
DOT SPS CONTAINER | NET EXPLOSIVE WT.
AEROSOL PROPELLANT(S)

SECTION XIII - REFERENCES

- THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES, PHYSICAL AGENTS, AND
BIOLOGICAL EXPOSURE INDICES, ACGIH, 1994-1995.
- OSHA PEL
- SAXS DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 8TH EDITION,
RICHARD J. LEWIS, SR.
- VENDORS MSDS

* SHORT TERM EXPOSURE LIMIT (TWA) LISTED AS FINAL RULE LIMITS PUBLISHED IN
THE FEDERAL REGISTER/VOL. 54 NO. 12, 1-19-89

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UNRECOMMENDED USE, STORAGE, OR DISPOSAL OF THE PRODUCT.