1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER'S NAME: A.P. NONWEILER COMPANY
ADDRESS: 3321 COUNTY ROAD A
P.O. BOX 1007
OSHKOSH, WI 54903-1007
EMERGENCY PHONE: 1-800-535-5053
INFORMATION PHONE: (920) 231-0850

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component/Exposure Limits | CAS# | % by Wt.
-------------------------------|------|--------
2-BUTOXYETHYL ACETATE | 112-07-2 | 53.70
2-HEPTANONE | 110-43-0 | 46.30

3. HAZARDS IDENTIFICATION

Potential Health Effects

EYE:
MAY CAUSE EYE IRRITATION. DIRECT CONTACT MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN:
***WARNING*** AVOID ALL CONTACT WITH SKIN. PENETRATES SKIN READILY. ANY CONTACT MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS WHICH CAN CAUSE DAMAGE TO THE KIDNEYS, LIVER, BLOOD AND/OR BONE MARROW.

INGESTION:
MODERATELY TOXIC. MAY CAUSE MOUTH, THROAT, ESOPHAGUS AND STOMACH IRRITATION, NAUSEA, VOMITING AND DIARRHEA. ASPIRATION OF MATERIAL INTO LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

INHALATION:
HIGH VAPOR/AEROSOL CONCENTRATIONS (GREATER THAN APPROXIMATELY 1000 PPM) ARE IRRITATING TO THE EYES AND THE RESPIRATORY TRACT, MAY CAUSE HEADACHES, DIZZINESS, ANESTHESIA, DROWSINESS, UNCONSCIOUSNESS, AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DEATH.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE
OVEREXPOSURE TO VAPOR, DUST OR MIST MAY AGGRAVATE EXISTING RESPIRATORY CONDITIONS, SUCH AS ASTHMA, BRONCHITIS, AND INFLAMMATORY OR FIBROTIC RESPIRATORY DISEASE.
4. FIRST AID MEASURES

EYES: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

SKIN: WASH CONTAMINATED AREA WITH SOAP AND WATER. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.

INGESTION: IF SWALLOWED, GIVE 2 GLASSES OF WATER TO DRINK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEE A PHYSICIAN.

INHALATION: RESCUERS SHOULD PUT ON APPROPRIATE PROTECTIVE GEAR. REMOVE FROM AREA OF EXPOSURE. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. KEEP VICTIM WARM. GET IMMEDIATE MEDICAL ATTENTION.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: 102F Method: TCC

FLAMMABLE LIMITS:
Lower flammable limit: .88
Upper flammable limit: 8.5

AUTOIGNITION TEMPERATURE:
INFORMATION NOT AVAILABLE

HAZARDOUS COMBUSTION PRODUCTS:
6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES, AND ELECTRICAL, STATIC, OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS. VENTILATE AREA. CONTAIN AND REMOVE WITH VERMICULITE OR OTHER INERT MATERIAL. PLACE IN A CONTAINER FOR CHEMICAL WASTE. IF LARGE SPILL, FLUSH SPILL AREA WITH WATER SPRAY AND PREVENT RUNOFF FROM ENTERING DRAINS, SEWERS, OR STREAMS.

LARGE SPILL:

IF LARGE SPILL, FLUSH SPILL AREA WITH WATER SPRAY AND PREVENT RUNOFF FROM ENTERING DRAINS, SEWERS, OR STREAMS.

7. HANDLING AND STORAGE

HANDLING:
REPORTS HAVE ASSOCIATED REPEATED OR PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

STORAGE:
DO NOT STORE ABOVE 120 DEG.F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED TO COMPLY WITH OSHA 1910.106. KEEP AWAY FROM HEAT, SPARKS AND FLAME. KEEP CONTAINERS CLOSED WHEN NOT IN USE AND UPRIGHT TO PREVENT LEAKAGE.

OTHER PRECAUTIONS:
AVOID CONTACT WITH SKIN OR EYES. WASH THOROUGHLY AFTER HANDLING.

HOT ORGANIC CHEMICAL VAPORS OR MISTS ARE SUSCEPTIBLE TO SUDDEN SPONTANEOUS COMBUSTION WHEN MIXED WITH AIR. IGNITION MAY OCCUR AT TEMPERATURES BELOW THOSE PUBLISHED IN THE LITERATURE AS "AUTOIGNITION" OR "IGNITION" TEMPERATURES. IGNITION TEMPERATURES DECREASE WITH INCREASING VAPOR VOLUME AND VAPOR/AIR CONTACT TIME, AND ARE INFLUENCED BY PRESSURE CHANGES.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
USE LOCAL EXHAUST VENTILATION WITH A MINIMUM CAPTURE VELOCITY OF 100 FT/MIN. (0.5 M/SEC.) AT THE POINT OF VAPOR EVOLUTION. REFER TO THE CURRENT EDITION OF INDUSTRIAL VENTILATION: A MANUAL OF RECOMMENDED PRACTICE PUBLISHED BY THE AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS FOR INFORMATION ON THE DESIGN, INSTALLATION, USE, AND MAINTENANCE OF EXHAUST SYSTEMS.

RESPIRATORY PROTECTION:
DO NOT BREATHE VAPORS. WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS, WEAR AN APPROPRIATE, PROPERLY FITTED RESPIRATOR (NIOSH/MSHA APPROVED) UNTIL VAPORS ARE EXHAUSTED. FOLLOW RESPIRATOR MANUFACTURER'S DIRECTIONS FOR RESPIRATOR USE. OBSERVE OSHA STANDARD 29CFR 1910.134.

VENTILATION:
PROVIDE GENERAL CLEAN AIR DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE AIR CONTAMINANT CONCENTRATION BELOW THE LOWER EXPLOSION LIMIT AND BELOW CURRENT APPLICABLE EXPOSURE LIMITS. REFER TO OSHA STANDARD 1910.94.

SKIN PROTECTION:
USE SOLVENT IMPERMEABLE GLOVES TO AVOID CONTACT WITH PRODUCT.

EYE PROTECTION:
DO NOT GET IN EYES. USE SAFETY EYEWEAR WITH SPLASH GUARDS OR SIDE SHIELDS, CHEMICAL GOGGLES, FACE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT
AVOID CONTACT WITH SKIN. USE PROTECTIVE CLOTHING. PREVENT CONTACT WITH CONTAMINATED CLOTHING. WASH CONTAMINATED CLOTHING, INCLUDING SHOES, BEFORE REUSE.

WORK/HYGIENIC PRACTICES
WASH AT THE END OF EACH WORKSHIFT AND BEFORE EATING, SMOKING, OR USING THE TOILET. USE APPROPRIATE HAND AND SKIN LOTIONS TO PROTECT THE SKIN.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 304°F
MELTING POINT: INFORMATION NOT AVAILABLE
VAPOR PRESSURE: INFORMATION NOT AVAILABLE
VAPOR DENSITY: HEAVIER THAN AIR
SOLUBILITY IN WATER: INSOLUBLE
SPECIFIC GRAVITY: .88
EVAPORATION RATE: SLOWER THAN BUTYL ACETATE
pH: INFORMATION NOT AVAILABLE
ODOR: ACRYLIC ODOR
APPEARANCE: INFORMATION NOT AVAILABLE
10. STABILITY AND REACTIVITY

CHEMICAL STABILITY (CONDITIONS TO AVOID):
STABLE

INCOMPATIBILITY:
STRONG ACIDS AND STRONG OXIDIZING AGENTS.

CONDITIONS TO AVOID:
ELEVATED TEMPERATURES

SOURCES OF IGNITION

HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION OR COMBUSTION CAN PRODUCE FUMES CONTAINING ORGANIC ACIDS, CARBON DIOXIDE AND CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

11. TOXICOLOGICAL INFORMATION

EYE:
INFORMATION NOT AVAILABLE

SKIN:
INFORMATION NOT AVAILABLE

INGESTION:
INFORMATION NOT AVAILABLE

INHALATION:
INFORMATION NOT AVAILABLE

SUBCHRONIC: INFORMATION NOT AVAILABLE

CHRONIC/CARCINOGENICITY: INFORMATION NOT AVAILABLE

TERATOLOGY: INFORMATION NOT AVAILABLE

REPRODUCTION: INFORMATION NOT AVAILABLE

MUTAGENICITY: INFORMATION NOT AVAILABLE

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: INFORMATION NOT AVAILABLE

CHEMICAL FATE INFORMATION:
13. DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS. INCINERATE IN APPROVED FACILITY.

14. TRANSPORT INFORMATION (Not meant to be all inclusive)

US DOT HAZARD CLASS: 3 UN1263 FLAMMABLE

15. REGULATORY INFORMATION

(Not meant to be all inclusive - selected regulations represented)

U.S. FEDERAL REGULATIONS:
ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH THE INVENTORY LISTING REQUIREMENTS OF THE U.S. TOXIC SUBSTANCES CONTROL ACT (TSCA) CHEMICAL SUBSTANCE INVENTORY.

OSHA:

CERCLA: SARA HAZARD CATEGORY:
THIS MATERIAL IS REGULATED UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) AND THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III SECTION 302. THIS MATERIAL IS OR CONTAINS CHEMICAL(S) LISTED IN 40 CFR TABLE 302.4 OR NONDESIGNATED RCRA ICR SUBSTANCE(S). (NONDESIGNATED ICR SUBSTANCES APPLY TO MATERIALS THAT WILL NOT BE REUSED.) RELEASE IN EXCESS OF ITS REPORTABLE QUANTITY MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (1-800-424-8802) AND TO THE APPROPRIATE STATE AND LOCAL EMERGENCY RESPONSE ORGANIZATIONS.

SECTION 313:
THIS PRODUCT CONTAINS A CHEMICAL WHICH IS LISTED IN SECTION 313 AT OR ABOVE DE MINIMIS CONCENTRATIONS.

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TOXIC SUBSTANCES CONTROL ACT: INFORMATION NOT AVAILABLE

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*** NO REPORTABLE QUANTITIES OF HAZARDOUS INGREDIENTS ARE PRESENT ***

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS:
THIS PRODUCT IS A 'CONTROLLED PRODUCT' UNDER THE CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS).

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): INFORMATION NOT AVAILABLE
**Material Safety Data Sheet**

**Product Code:** 1700L111  
**Product Name:** 1700L111 UR RETARDER  
**A.P. Nonweiler Company, 3321 County Road A, P.O. Box 1007, Oshkosh, WI 54903-1007**  
**24-hour Emergency Phone:** 1-800-535-5053

**EINECS: Information Not Available**

**State Regulations:**

**New Jersey**  
The following materials are non-hazardous, but are among the top five components in this product:

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**Pennsylvania**  
Any material listed as "Non Hazardous" in the Cas Reg No. Column of Section 2, Composition/Information on ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania worker and community right to know act.

The following non-hazardous ingredients are present in the product at greater than 3%:

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**California**  
The chemical(s) noted below and contained in this product, are known to the state of California to cause cancer:

(Proposition 65):

This product contains trace levels of a component or components known to the state of California to cause cancer and birth defects or other reproductive harm: Benzene (71-43-2)

This product contains a component or components known to the state of California to cause birth defects or other reproductive harm: Toluene (108-88-3).

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**Volatile Organic Compounds:** 7.33 lb/gl

**16. Other Information**

**MSDS Status:** Information Not Available

This document has been prepared using data from sources considered technically reliable. It does not constitute a warranty, express or implied, as to the accuracy of the information contained herein. Actual conditions of use and handling are beyond seller’s control. User is responsible to evaluate all available information when using product for any particular use and to comply with all federal, state, provincial and local laws and regulations.

The following boilerplate keys do not have matching boilerplate
Product Code: 1700L111
Product Name: 1700L111 UR RETARDER

A.P. NONWEILER COMPANY, 3321 COUNTY ROAD A, P.O. BOX 1007, OSHKOSH, WI 54903-1007

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key prefixes in the MSDS Master Format file:
EF01
NP02
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