

# MATERIAL SAFETY DATA SHEET

PRODUCT CODE: 015V  
NORKLAD WB

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Norklad WB - High Solids, Waterborne Epoxy  
**PRODUCT CODES:** 015V A

**MANUFACTURER:** Norkan / Original Color Chips Co  
**STREET ADDRESS:** 26200 Groesbeck Hwy  
**CITY, STATE, ZIP:** Warren, MI 48089 USA

**INFORMATION PHONE:** 724-483-9300  
**EMERGENCY PHONE:** Chemtrec 800-424-9300  
**FAX PHONE:** 724-483-9306

**PREPARED BY:** Harry Jackson

**DATE REVISED:** 11/15/05

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
1, 2 ETHANE DIAMINE, N-(2-AMINO ETHYL)	111-40-0	1PPM	1PPM	NONE	
TETRAETHYLENE PENTAMINE	112-57-2	NONE	NONE	NONE	
ETHYLENEDIAMINE	107-15-3	10PPM	10PPM	10PPM	
PENTAETHYLENE HEXAMINE	4067-16-7	NONE	NONE	NONE	
WATER	7732-18-5	NONE	NONE	NONE	
GLACIAL ACITIC ACID	64-19-7	10PPM	10PPM	15PPM	
PIGMENT NON HAZARDOUS IN LIQUID FORM		10mg/m3	10mg/m3	5mg/m3	
STODDARD SOLVENT	8052-41-3	100PPM	100PPM	NONE	
2-ETHYL-1-HEXANOL	104-76-7	NONE	NONE	NONE	
*GLYCOL ETHER 2-BUTOXYETHANOL	111-76-2	25PPM	25PPM	NONE	<0.5%
PROPRIETARY ADDITIVE NJTSRN 800963-5170		NONE	NONE	NONE	
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100PPM	100PPM	150PPM	
FILLER- NON HAZARDOUS IN LIQUID FORM		20mppcf	3mg/m3	NONE	
EXTENDER NON HAZARDOUS IN LIQUID FORM		NONE	2mg/m3	NONE	

SECTION 2 NOTES: \*Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.  
PROPYLENE GLYCOL MONOMETHYL ETHER CAS# 107-98-2 (ACGIH) STEL=150PPM.  
FOLLOW 311b (2) (A) 40CFR 116, 117 GUIDELINES. FOLLOW TSCA 8 (a) 40 CFR 712, 47 FR 26992 GUIDELINES

## SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE AND ODOR:** LOW VISCOSITY LIQUID IN VARYING COLORS  
**BOILING POINT OR RANGE ° F:** 212  
**VAPOR DENSITY (AIR = 1):** N/A  
**SPECIFIC GRAVITY (H2O = 1):** 1.4  
**EVAPORATION RATE:** N/A  
**SOLUBILITY IN WATER:** EMULSIFIABLE

SECTION 3 NOTES:

## SECTION 4: FIRE-FIGHTING MEASURES

**FLAMMABLE LIMITS IN AIR, (% by volume)**  
**UPPER:** not available  
**LOWER:** not available

**FLASH POINT:** 200+F

**METHOD USED:**

SETA FLASH

**EXTINGUISHING MEDIA:**

FOAM, ALCOHOL FOAM, CO2, WATER FOG

**SPECIAL FIRE FIGHTING PROCEDURES:**

TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTING. COOL FIRE EXPOSED CONTAINERS WITH WATER.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

NONE KNOWN.

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## SECTION 5: STABILITY AND REACTIVITY

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### STABILITY:

STABLE

### CONDITIONS TO AVOID (STABILITY):

AVOID CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

### INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS MINERAL ACIDS AND EPOXY RESINS IN UNCONTROLLED AMOUNTS.

### HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO, CO<sub>2</sub>, NOX

### HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

SECTION 5 NOTES:

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## SECTION 6: HAZARDS IDENTIFICATION

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### HMIS HAZARD CLASSIFICATION

HEALTH: 2      FLAMMABILITY: 1      REACTIVITY: 0      PERSONAL PROTECTIVE EQUIPMENT: G

### POTENTIAL HEALTH EFFECTS

#### EYES:

THIS MATERIAL CAN CAUSE EYE IRRITATION OR REDNESS.

#### SKIN:

IRRITATION TO THE SKIN CAN OCCUR BUT DERMAL ABSORPTION TOXICITY IS LOW.

#### INGESTION:

INGESTION OF MATERIAL CAN CAUSE NAUSEA OR OTHER SIMILAR RESPONSES/

#### INHALATION:

HIGH CONCENTRATIONS OF VAPOR CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, NAUSEA, AND DIZZINESS.

#### HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES.

#### MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

#### CARCINOGENICITY

OSHA: NO      NTP: NO      IARC: NO

#### ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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## SECTION 7: FIRST AID MEASURES

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### EYES:

IMMEDIATELY FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ASSISTANCE.

### SKIN:

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

### INGESTION:

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

### INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

### NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

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## SECTION 8: RELEASE MEASURES

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### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP REMAINDER WITH CLAY OR OTHER ABSORBENT AND PLACE IN DISPOSAL CONTAINERS.

SECTION 8 NOTES:

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## SECTION 9: WASTE DISPOSAL

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### WASTE DISPOSAL METHOD:

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DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

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## SECTION 10: HANDLING AND STORAGE

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### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

### OTHER PRECAUTIONS:

MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT.

SECTION 10 NOTES:

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## SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS.

### VENTILATION:

AVOID BREATHING VAPORS. VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS.

### PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

### EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

### OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

### WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SECTION 11 NOTES:

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## SECTION 12: DISCLAIMER

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**DISCLAIMER:** The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

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## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
MODIFIED DIGLYCIDYL ETHER OF BISPHENOL A	25068-38-6	NONE	NONE	NONE	
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	

### SECTION 2 NOTES:

\*\*\*No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.\*\*\*

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## SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

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### APPEARANCE AND ODOR:

LOW VISCOSITY LIQUID - CLEAR  
**BOILING POINT OR RANGE ° F:** 200  
**VAPOR DENSITY (AIR = 1):** N/A  
**SPECIFIC GRAVITY (H2O = 1):** 1.1  
**EVAPORATION RATE:** N/A  
**SOLUBILITY IN WATER:** NEGLIGIBLE

### SECTION 3 NOTES:

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## SECTION 4: FIRE-FIGHTING MEASURES

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**FLAMMABLE LIMITS IN AIR,** (% by volume) **UPPER:** not available  
**LOWER:** not available

**FLASH POINT:** 200+F

**METHOD USED:**

SETA FLASH

**EXTINGUISHING MEDIA:**

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

**SPECIAL FIRE FIGHTING PROCEDURES:**

DO NOT ENTER CONFINED AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

NONE KNOWN.

### SECTION 4 NOTES:

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## SECTION 5: STABILITY AND REACTIVITY

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**STABILITY:** STABLE

**CONDITIONS TO AVOID (STABILITY):**

AVOID EXCESSIVE HEAT OR OPEN FLAMES.

**INCOMPATIBILITY (MATERIAL TO AVOID):**

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:**

CO2, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR

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## SECTION 6: HAZARDS IDENTIFICATION

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### HMIS HAZARD CLASSIFICATION

HEALTH: 1      FLAMMABILITY: 1      REACTIVITY: 0      PERSONAL PROTECTIVE EQUIPMENT: B

### POTENTIAL HEALTH EFFECTS

#### EYES:

MAY CAUSE IRRITATION BUT NO CORNEAL INJURY IS LIKELY.

#### SKIN:

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE

#### INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

#### INHALATION:

NO GUIDE FOR CONTROL KNOWN, HOWEVER, EXPOSURE TO HEATED VAPORS CAN CAUSE IRRITATION TO THE NOSE, THROAT OR MUCOUS MEMBRANES..

#### HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATION OF VAPOR. EYES: INJURY IF UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

#### MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS

#### CARCINOGENICITY

OSHA: NO      NTP: NO      IARC: NO

#### ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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## SECTION 7: FIRST AID MEASURES

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### EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

### SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

### INGESTION:

LOW IN TOXICITY, INDUCE VOMITING ONLY IF LARGE AMOUNTS OF MATERIAL ARE INGESTED, AND OTHERWISE DO NOT INDUCE VOMITING. IN EITHER CASE CONSULT WITH A PHYSICIAN.

### INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

### NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

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## SECTION 8: RELEASE MEASURES

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### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

SECTION 8 NOTES:

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## SECTION 9: WASTE DISPOSAL

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### WASTE DISPOSAL METHOD:.

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAW.

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## SECTION 10: HANDLING AND STORAGE

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### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN A COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS

### OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CAN NOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF

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## SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. GENERAL EXHAUST IS USUALLY SUFFICIENT IN LIEU OF NIOSH RESPIRATOR

### VENTILATION :

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS

### PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

### EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

### OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

### WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SECTION 11 NOTES:

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