

NEP/ED INDUSTRIES, INC.
315 POPLAR STREET
SCRANTON, PA 18509

Material Safety Data Sheet

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use of dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I

MANUFACTURER'S NAME
NEP/ED INDUSTRIES, INC.

TRADE NAMES AND SYNONYMS
#1 CHLORINE TEST SOLUTION
OTO CHLORINE TEST SOLUTION

CHEMICAL NAMES AND SYNONYMS
O-TOLIDINE DIHYDROCHLORIDE (3, 3'-DIMETHYL -(1,1'-BIPHENYL) -4,4'-
DIAMINE DIHYDROCHLORIDE

CHEMICAL FAMILY
ORGANIC INDICATOR

FORMULA
(C₆H₃-4-NH₂-3-CH₃)₂ 2HCl

SECTION II - HAZARDOUS INGREDIENTS

COMPONENT	%	HAZARD DATA
O-TOLIDINE DIHYDROCHLORIDE CAS 612-82-8	<0.2	DANGER-SUSPECTED CARCINOGEN
HYDROCHLORIC ACID CAS 7647-01-0	3.7	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)
212

SPECIFIC GRAVITY (H₂O=1)
1.0

VAPOR PRESSURE (mm Hg)
NA

VAPOR DENSITY (AIR=1)
NA

SOLUBILITY IN WATER
COMPLETE

APPEARANCE AND ODOR
CLEAR, ODORLESS, WATER-LIKE SOLUTION

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used) NA - AQUEOUS SOLUTION	FLAMMABLE LIMITS NA
EXTINGUISHING MEDIA NA	
SPECIAL FIRE FIGHTING PROCEDURES NA	
UNUSUAL FIRE AND EXPLOSION HAZARDS NONE	

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE NOT ESTABLISHED
TOXICITY SUSPECTED CARCINOGEN. TOXICITY LEVELS NOT ESTABLISHED.
EFFECTS OF OVER EXPOSURE GENERAL-Suspected carcinogen. INHALATION: May be harmful if inhaled. EYES: Solution may cause eye burns. SKIN: Harmful if absorbed through the skin.
EMERGENCY AND FIRST AID PROCEDURES INGESTION: Give water. Do not induce vomiting. Seek medical attention. EYES: Immediately flush with water and get medical attention. SKIN: Immediately flush with plenty of water. Remove contaminated clothing.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE XX	STRONG OXIDIZERS
INCOMPATIBILITY STRONG OXIDIZERS		
HAZARDOUS DECOMPOSITION PRODUCTS NA		
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR XX	NA

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED.
WEARING SUITABLE PROTECTIVE CLOTHING, COLLECT SPILLED MATERIAL IN SEALED CONTAINER. WASH SPILL AREA WITH SOAP AND WATER.

WASTE DISPOSAL METHOD

WEARING SUITABLE PROTECTIVE CLOTHING, COLLECT SPILL WITH ABSORBENT, FLAMMABLE MATERIAL AND INCINERATE. STATE AND LOCAL LAWS TAKE PRECEDENCE.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

NA

VENTILATION

LOCAL EXHAUST IF NECESSARY

SPECIAL

MECHANICAL

OTHER

PROTECTIVE GLOVES

YES

EYE PROTECTION

SAFETY GLASSES

OTHER PROTECTIVE EQUIPMENT

AS NECESSARY TO PREVENT SKIN CONTACT.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

KEEP BOTTLES TIGHTLY SEALED WHEN NOT IN USE. DO NOT STORE IN DIRECT SUNLIGHT. PROTECT FROM FREEZING AND EXTREME HEAT.

OTHER PRECAUTIONS

NONE

The information supplied above is presented in good faith and has been derived from sources to be reliable. However, no warranty, expressed or implied is extended regarding its accuracy or the results to be obtained from its use. Since conditions of use are beyond our control all risks are assumed by the user.

NEP/JED INDUSTRIES, INC.
315 POPLAR STREET
SCRANTON, PA 18508

Material Safety Data Sheet

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use of dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I

MANUFACTURER'S NAME
NEP/JED Industries, Inc.

TRADE NAMES AND SYNONYMS
#2 Phenol Red ph Test Solution
Phenol Red ph Test Solution

CHEMICAL NAMES AND SYNONYMS
Phenol Red

CHEMICAL FAMILY
Base Solution

FORMULA
Reagent

SECTION II - HAZARDOUS INGREDIENTS

COMPONENT	%	HAZARD DATA
Phenol Red CAS 344-87-61-1	0.0021	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.) 212	SPECIFIC GRAVITY (H ₂ O=1) 1
VAPOR PRESSURE (mm Hg) N/A	
VAPOR DENSITY (AIR=1) N/A	
SOLUBILITY IN WATER 100%	
APPEARANCE AND ODOR Red - No Odor	

PHENOL RED

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)
None

FLAMMABLE LIMITS
N/A

EXTINGUISHING MEDIA
N/A

SPECIAL FIRE FIGHTING PROCEDURES
N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS
N/A

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
N/A

TOXICITY
N/A

EFFECTS OF OVER EXPOSURE
Not Established Other Than Mutagenic Activity

EMERGENCY AND FIRST AID PROCEDURES
Ingestion: Give Plenty of Water to Dilute. Consult a Physician Immediately.
Eyes: Flush with Water for 15 Minutes. Get Medical Attention if Symptoms Persist.
Skin: Wash with Soap and Water.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE XX	N/A

INCOMPATIBILITY
None

HAZARDOUS DECOMPOSITION PRODUCTS
None

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR XX	None

PHENOL RED
SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled
Absorb Material with Suitable Absorbent.

WASTE DISPOSAL METHOD

Dispose of Contaminated Material in Accordance with Current Laws and Ordinances.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Not Required

VENTILATION

LOCAL EXHAUST

Not Required

SPECIAL

None

MECHANICAL

Not Required

OTHER

None

PROTECTIVE GLOVES

Not Required

EYE PROTECTION

Not Required

OTHER PROTECTIVE EQUIPMENT

None

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Ensure That Bottle Cap is Tightly Sealed After Using. Protect from Extreme Heat and Freezing.

OTHER PRECAUTIONS

None

The information supplied above is presented in good faith and has been derived from sources to be reliable. However, no warranty, expressed or implied is extended regarding its accuracy or the results to be obtained from its use. Since conditions of use are beyond our control all risks are assumed by the user.

NEP/JED INDUSTRIES, INC.
315 POPLAR STREET
SCRANTON, PA 18509

Material Safety Data Sheet

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use of dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I

MANUFACTURER'S NAME
NEP/JED Industries, Inc.

TRADE NAMES AND SYNONYMS
#3 Acid Demand and Alkalinity Test Solution

CHEMICAL NAMES AND SYNONYMS
Hydrochloric Acid Solution

CHEMICAL FAMILY
Mixture

FORMULA
N/A

SECTION II - HAZARDOUS INGREDIENTS

COMPONENT	%	HAZARD DATA
Hydrochloric Acid CAS 7647-01-0	0.1	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)
212

SPECIFIC GRAVITY (H₂O=1)
1.01

VAPOR PRESSURE (mm Hg)
20° C=16

VAPOR DENSITY (AIR=1)
N/A

SOLUBILITY IN WATER
Complete

APPEARANCE AND ODOR
Clear, Odorless, and Insoluble

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)
N/A

FLAMMABLE LIMITS

EXTINGUISHING MEDIA
Not Applicable

SPECIAL FIRE FIGHTING PROCEDURES
N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS
N/A

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

TOXICITY

EFFECTS OF OVER EXPOSURE

Routes of Entry, Signs and Symptoms and Medical Conditions Aggravated by Exposure

EMERGENCY AND FIRST AID PROCEDURES

Eye Irritant: Flush with Water for 15 Minutes. Contact a Physician if Irritation Occurs.
Ingestion: Give Plenty of Water and Contact a Physician.
Skin: Flush with Water

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE XX	Heating will result in liberation of toxic hydrochloric acid fumes

INCOMPATIBILITY
N/A

HAZARDOUS DECOMPOSITION PRODUCTS
Heating will result in liberation of toxic hydrogen chloride fumes.

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR XX	

SECTION VII - SPILL OR LEAK PROCEDURES

Mop Up or Flush to Sewer with Water

WASTE DISPOSAL METHOD

Flush to Sewer - Follow all Federal, State, and Local Waste Disposal Regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

No

VENTILATION

NO

LOCAL EXHAUST

SPECIAL

MECHANICAL

OTHER

PROTECTIVE GLOVES

NO

EYE PROTECTION

YES

OTHER PROTECTIVE EQUIPMENT

Safety Glasses

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep Out of Reach of Children

OTHER PRECAUTIONS

The information supplied above is presented in good faith and has been derived from sources to be reliable. However, no warranty, expressed or implied is extended regarding its accuracy or the results to be obtained from its use. Since conditions of use are beyond our control all risks are assumed by the user.

NEP/JED INDUSTRIES, INC.
315 POPLAR STREET
SCRANTON, PA 18509

Material Safety Data Sheet

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use of dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I

MANUFACTURER'S NAME

NEP/JED Industries, Inc.

TRADE NAMES AND SYNONYMS

#4 Chlorine Neutralizer Test Solution

CHEMICAL NAMES AND SYNONYMS

Sodium Thiosulfate Solution

CHEMICAL FAMILY

Inorganic Salt Solution

FORMULA

$\text{Na}_2\text{S}_2\text{O}_3$

SECTION II - HAZARDOUS INGREDIENTS

COMPONENT	%	HAZARD DATA
Sodium Thiosulfate CAS 7772-98-7	<1.0	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)

212

SPECIFIC GRAVITY (H₂O=1)

1.0

VAPOR PRESSURE (mm Hg)

17

VAPOR DENSITY (AIR=1)

0.6

SOLUBILITY IN WATER

Complete

APPEARANCE AND ODOR

Colorless, Odorless, Water-Like Solution

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)
N/A Aqueous Solution

FLAMMABLE LIMITS
N/A

EXTINGUISHING MEDIA
Water

SPECIAL FIRE FIGHTING PROCEDURES
None

UNUSUAL FIRE AND EXPLOSION HAZARDS
None

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Not established for Mixture

TOXICITY
300 mg/kg per 7 days resulted in blood effect.

EFFECTS OF OVER EXPOSURE
Large Doses Internally Can Cause Cathartic Effects in Humans.

EMERGENCY AND FIRST AID PROCEDURES
Ingestion: Dilute by drinking water; induce vomiting and seek medical attention immediately.
Eyes and Skin: Flush with water. Seek medical attention if symptoms persist.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE XX	Avoid Evaporation to Dryness

INCOMPATIBILITY
None

HAZARDOUS DECOMPOSITION PRODUCTS
If Evaporation to Dryness and Decomposition, Toxic Hydrogen Sulfides and Sulfur Oxides can Evolve.

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR	XX

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled
Flush to Sewer.

WASTE DISPOSAL METHOD

Flush to Sewer.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Not Required

VENTILATION

LOCAL EXHAUST
If Misting Occurs

SPECIAL
None

MECHANICAL
None

OTHER
None

PROTECTIVE GLOVES

Not Required

EYE PROTECTION

Safety Glasses

OTHER PROTECTIVE EQUIPMENT

None

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid Unnecessar Skin Contact and Guard Against Evaporation to Dryness. Protect
Against Freezing or Extreme Heat.

OTHER PRECAUTIONS

None

The information supplied above is presented in good faith and has been derived from sources to be reliable. However, no warranty, expressed or implied is extended regarding its accuracy or the results to be obtained from its use. Since conditions of use are beyond our control all risks are assumed by the user.

NEP/JED INDUSTRIES, INC.
315 POPLAR STREET
SCRANTON, PA 18509

Material Safety Data Sheet

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use or dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I

MANUFACTURER'S NAME
NEP/JED Industries, Inc.

TRADE NAMES AND SYNONYMS
#5 Total Alkalinity Test

CHEMICAL NAMES AND SYNONYMS
Bromophenol Blue

CHEMICAL FAMILY
Organic Indicator

FORMULA
 $C_6H_4SO_2OC(C_6H_2-3, 5-Br_2-OH)_2$

SECTION II - HAZARDOUS INGREDIENTS

COMPONENT	%	HAZARD DATA
Bromophenol Blue CAS 62625-28-9	0.04	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)
212

SPECIFIC GRAVITY (H₂O=1)
1.0

VAPOR PRESSURE (mm Hg)
17

VAPOR DENSITY (AIR=1)
0.6

SOLUBILITY IN WATER
Complete

APPEARANCE AND ODOR
Blue, Liquid (water-like) Solution

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)
N/A Aqueous Solutions

FLAMMABLE LIMITS
N/A

EXTINGUISHING MEDIA
Water

SPECIAL FIRE FIGHTING PROCEDURES
N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS
N/A

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Not Established

TOXICITY
Not Established

EFFECTS OF OVER EXPOSURE
Not Established

EMERGENCY AND FIRST AID PROCEDURES

Ingestion: Drink Large Volumes of Water; Induce Vomiting; Seek Medical Attention
Eyes and Skin: Flush with Water. Seek medical attention if symptoms persist.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE XX	None

INCOMPATIBILITY
None

HAZARDOUS DECOMPOSITION PRODUCTS
None

HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR XX	None

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled
Absorb Spills with Appropriate Absorbent Material

WASTE DISPOSAL METHOD

Dispose of Contaminated Absorbent in Accordance with Current Laws and Ordinances.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Not Applicable

VENTILATION

LOCAL EXHAUST

SPECIAL

Not Required

MECHANICAL

OTHER

Not Required

PROTECTIVE GLOVES

EYE PROTECTION

Not Required

Safety Glasses

OTHER PROTECTIVE EQUIPMENT

None

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid Contact with Skin, Clothing, and Other Materials or Chemicals. Protect from Freezing or Extreme Heat.

OTHER PRECAUTIONS

None

The information supplied above is presented in good faith and has been derived from sources to be reliable. However, no warranty, expressed or implied is extended regarding its accuracy or the results to be obtained from its use. Since conditions of use are beyond our control all risks are assumed by the user.
