

BIO BASIC INC.
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MATERIAL SAFETY DATA SHEET
REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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DATE UPDATED: FEBRUARY 25, 2015

SECTION 1. ----- CHEMICAL IDENTIFICATION -----

Product Name 4-Chloro-1-Naphthol
Product Code(s) CB0293
Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use
Recommended Use Substrate used for blotting and immunohistochemical staining procedures.

SECTION 2. ----- HAZARDS IDENTIFICATION -----

GHS - Classification

Classification Skin Irritant 2 Eye Irritant 2
Signal Word Warning



Hazard Statements H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation

Precautionary Statements P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
1-Naphthalenol, 4-chloro-	EEC No. 210-068-5	Not available	604-44-4	95-100	R43

SECTION 4. ----- FIRST-AID MEASURES-----

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes
Inhalation	Move to fresh air. If breathing becomes difficult, give oxygen
Ingestion	Clean mouth with water and afterwards drink plenty of water
Notes to Physician	Treat symptomatically

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Flammable Properties	Not flammable
Flash Point	Not determined
Suitable Extinguishing Media	Dry chemical, CO ₂ , water spray or regular foam
Hazardous Combustion Products	Carbon oxides, Hydrogen Chloride gas.
<u>Explosion Data</u>	
Sensitivity to Mechanical Impact	Not sensitive
Sensitivity to Static Discharge	Not sensitive
Protective Equipment and Precautions for Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

Personal Precautions	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation
Methods for Containment	Prevent further leakage or spillage if safe to do so
Methods for Cleaning Up	Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

SECTION 7. ----- HANDLING AND STORAGE-----

Handling	Handle in accordance with good industrial hygiene and safety practice
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place
Incompatible Products	Strong oxidizing agents.

SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - -

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
1-Naphthalenol, 4-chloro-604-44-4			

Engineering Measures Showers
 Eyewash stations
 Ventilation systems

Personal Protective Equipment

Eye/Face Protection Tightly fitting safety goggles
Skin and Body Protection Wear protective gloves/clothing
Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

Appearance White to off-white to Gray
Odor No information available
Odor Threshold No information available
Decomposition Temperature °C No information available
Freezing Point No information available
Initial Boiling Point No information available
Physical State Powder Crystalline
pH No data available
Flash Point Not determined
Autoignition Temperature No data available
Boiling Point/Range No data available
Melting Point/Range 120-121 °C
Flammability Limits in Air **Upper** No data available **Lower** No data available
Explosive Properties No information available
Oxidizing Properties No information available
Evaporation Rate No data available
MMHG @ 37.8 C No data available
Vapor Density No data available
Specific Gravity No data available
Solubility No information available
Partition Coefficient (n-octanol/water) No data available
Viscosity No information available

SECTION 10. - - - - - STABILITY AND REACTIVITY - - - - -

Stability Stable under recommended storage conditions
Incompatible Products Strong oxidizing agents.
Conditions to Avoid None known based on information supplied
Hazardous Decomposition Products Carbon oxides. Hydrogen chloride gas.
Hazardous Polymerization Hazardous polymerization does not occur

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Acute Toxicity

Product Information Causes skin, eye and respiratory tract irritation.

Chronic Toxicity

Chronic Toxicity No known effect based on information supplied

Target Organ Effects None known.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Ecotoxicity

Harmful to aquatic organisms.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
1-Naphthalenol, 4-chloro-			EC50 = 0.58 mg/L 30 min EC50 = 0.59 mg/L 5 min	

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations

Contaminated Packaging Dispose of in accordance with all federal, state and local regulations

SECTION 14. ----- TRANSPORT INFORMATION -----

IATA Not regulated

DOT Not regulated

SECTION 15. ----- REGULATORY INFORMATION -----

REACH Title VII Restrictions No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
1-Naphthalenol, 4-chloro-	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II
1-Naphthalenol, 4-chloro-604-44-4 (95-100)	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Does not Comply
IECSC	Complies
KECL	Does not Comply
PICCS	Does not Comply
AICS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990

CERCLA

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

International Regulations

Mexico - Grade No information available.

Canada

WHMIS Hazard Class

D2B Toxic materials



SECTION 16. ----- OTHER INFORMATION-----

Issuing Date	13-Aug-2009
Revision Date	25-Feb-2015
Revision Note	No information available.
Recommended Restrictions	No information available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS