



PRODUCT NAME:NHU ® N201

MSDS NO.20150002/ENGLISH

1.0 Chemical Product and Company Identification

1.1 Manufacturer / Supplier:

Zhejiang NHU Special Materials Co. ,Ltd, Hangzhou Bay Shangyu
Economic and Technological Development Area, Zhejiang
province,China,312369

1.2 Emergency Health Information:

+86-575-82728228

1.3 Emergency Spill Information:

+86-575-82728228

1.4 Other Product Information:

+86-575-82726779

2.0 Composition, Information on Ingredients

2.1 Component: Polyphthalamide

2.2 CAS Number:27135-32-6

2.3 100% by weight

(SeeSection8.0,"Exposure Controls/Personal Protection", for exposure guidelines)

3.0 Hazards Identification

3.1 Eye Contact: No significant health hazards identified.

3.2 Skin Contact: No significant health hazards identified. Molten material
causes severe thermal burns.

3.3 Inhalation: No Significant irritation expected other than possible
Mechanical irritation.

3.4 Ingestion: No Significant health hazards identified.

3.5 HMIS Code:(Health:1)(Flammability:1)(Reactivity:0)

3.6 NFPA Code:(Health:1)(Flammability:1)(Reactivity:0)

4.0 First Aid Measures

4.1 Eye: Flush eyes with plenty of water.

4.2 Skin: Wash exposed Skin with soap and water. For thermal burns, Cool
quickly with water and seek medical attention. Do not peel off solidified
material.

5.0 Fire Fighting Measures



- 5.1 Flashpoint: Greater than 615 deg F (324 deg C)
- 5.2 Autoignition temperature: Not determined
- 5.3 Flammability Classification: Not flammable
- 5.4 Extinguishing Media: Agents approved for Class A hazards (e.g. foam, steam) or water fog.
- 5.5 Unusual Fire and Explosion Hazards: High dust concentrations have a potential for combustion or explosion. If polyacetal or polyoxymethylene resin is molded or handled in your equipment, this material can rapidly decompose at the temperatures used to process NHU ® N201 resin. Inadvertent contamination of NHU ® N201 resin with polyacetal resin From the material handling system of other equipment can result in a rapid, Possibly violent, release of decomposition fumes when the contaminated Material is brought to molding temperature. To avoid, thoroughly clean Molding equipment with purging compound prior to product changeover and prevent cross contamination of material handling Systems.
- 5.6 Fire-Fighting Equipment: Firefighters should wear full bunker gear, Including a positive pressure self-contained breathing apparatus,
- 5.7 Hazardous Combustion Products: Incomplete burning can produce aldehydes, carbon monoxide, carbon dioxide. Oxides of nitrogen, and other harmful products.

6.0 Accidental Release Measures

- 6.1 Contain and remove by mechanical means.
- 6.2 Vacuum or sweep out avoiding the production of dust.

7.0 Handling and Storage

- 7.1 Handling: Minimize dust generation and accumulation. Take appropriate Measures to prevent static discharges, which may include thorough electrical interconnecting, grounding of equipment, and / or conveyance under inert gas.
- 7.2 Storage: No Special requirements.

8.0 Exposure Controls / Personal Protection

- 8.1 Eye: None required; however, use of eye protection is good industrial practice. Use dust goggles if high dust concentration is generated.
- 8.2 Skin: None required; however, use of protective gloves / clothing is good



industrial practice.

- 8.3 Inhalation: Use with adequate ventilation. If ventilation is inadequate, use NIOSH certified respirator that will protect against dust / mist. If heated and ventilation is inadequate, use a NIOSH-certified respirator which will protect against organic vapor and dust / mist.
- 8.4 Engineering controls: If general ventilation is inadequate, local exhaust ventilation should be used to dispose of vapors from hot processing equipment.
- 8.5 Exposure guidelines: No exposure limits have been established.

9.0 Chemical and Physical Properties

- 9.1 Appearance and Odor: ground powder or chunks with pungent odor of Organic amine.
- 9.2 pH: NA
- 9.3 Vapor Density: NA
- 9.4 Boiling Point: NA
- 9.5 Melting Point: 615 deg F (324 deg C)
- 9.6 Solubility in water: nil
- 9.7 Specific Gravity: 1.2-1.3 with water being 1.0

10.0 Stability and Reactivity

- 10.1 Stability: Stable at normal temperature and storage conditions
- 10.2 Conditions to avoid: Avoid generating dust. High dust concentrations have a potential for combustion and explosion. Avoid accumulations of molten masses of NHU ® N201 resin in excess of 50 Ibs (22.5Kgs), which may result in excessive pressure buildup from thermal degradation of the product.
- 10.3 Materials to avoid: If polyacetal and polyoxymethylene resin is molded or handled in your equipment. This material can rapidly decompose at the temperatures used to process NHU ® N201 resin. Inadvertent contamination of NHU ® N201 resin with polyacetal resin from the material handling system of other equipment can result in a rapid possibly violent release of decomposition fumes when the contaminated material is brought to molding temperature. To avoid, thoroughly clean molding equipment with purging compound prior to product changeover and



prevent cross contamination of material handling systems.

10.4 Hazardous Decomposition: Degradation products from excessive time at melt temperatures include trace amounts of carbon dioxide, carbon monoxide, methyl-acrylonitrile, aldehydes, ammonia and other organic vapors.

10.5 Hazardous Polymerization: Will not occur.

11.0 Toxicological Information

11.1 Acute Toxicity Data:

11.1.1 Eye Irritation: Testing not conducted. See other toxicity data.

11.1.2 Skin Irritation: Testing not conducted. See other toxicity data.

11.1.3 Dermal LD50: Testing not conducted. See other toxicity data.

11.1.4 Oral LD50: Testing not conducted. See other toxicity data.

11.1.5 Inhalation LC50: Testing not conducted. See other toxicity data.

11.2 Other Toxicity Data: Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and / or professional experience.

11.2.1 Dense dust generated by the handling and / or processing of this material may be irritating to the eyes, skin, nose and throat.

11.2.2 No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer(IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program(NTP) or the U.S. Occupational Safety and Health Act (OSHA).

12.0 Ecological Information: Ecological testing has not been conducted on this product.

13.0 Disposal Information: Burial at a permitted landfill is recommended. Determine waste classification at time of disposal. Conditions of use may render the spent product a hazardous waste. Disposal must be in accordance with applicable federal, state or local regulations.

13.1 RCRA: This unused material, when discarded or disposed of, is not Specifically listed as a hazardous if it meets criteria for being toxic,



corrosive, ignitable, or reactive according to U.S. EPA definitions (40 CFR Subpart C). This material could also become a hazardous waste if it is mixed with or comes into contact with a listed hazardous waste. If it is a hazardous waste, regulations in 40 CFR 262-266, 268, 270 and 279 may apply.

14.0 Transportation Information

- 14.1 U.S.DEPT OF Transportation: Shipping Name is not regulated
- 14.2 International Information:
 - 14.2.1 Sea(IMO / IMDG): Shipping name not regulated.
 - 14.2.2 AIR(ICAO / IATA): Shipping name not regulated.
 - 14.2.3 European Road / Rail (ADR / RID): Shipping name not regulated.
 - 14.2.4 Canadian Transportation of Dangerous Goods: Shipping name not regulated.

15.0 Regulatory Information

- 15.1 CERCLA SECTIONS 102a / 103 HAZARDOUS SUBSTANCES(40CFR part 302.4): This product is not reportable under 40 CFR Part 302.4.
- 15.2 SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES(40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.
- 15.3 SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370): This product is not regulated under SARA Title III Section 311/312.
- 15.4 SARA TITLE III SECTION 313 (40 CFR Part 372): This product is not regulated under Section 313 of SARA and 40 CFR Part 372.
- 15.5 U.S.INVENTORY(TSCA): Listed on Inventory.
- 15.6 OSHA HAZARD COMMUNICATION STANDARD: Not hazardous per 29 CFR 1910.1200(d).
- 15.7 WHMIS Controlled Product Classification: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.
- 15.8 EC INVENTORY (EINECS / ELINCS): In compliance.
- 15.9 JAPAN INVENTORY(MITI): Listed on inventory.
- 15.10 AUSTRALIA INVENTORY (AICS): One or more components not listed on the inventory.
- 15.11 KOREA INVENTORY (ECL): Listed on inventory.



15.12 CANADA INVENTORY (DSL): One or more of the components of this product is not listed on the DSL.

15.13 PHILIPPINE INVENTORY (PICCS): One or more components not listed on the inventory.

16.0 Other Information

16.1 This product, to the best of our knowledge, does not contain and is not manufactured with any Class I or Class II Ozone Depleting Chemicals (ODCs).

16.2 This product does not contain chemicals listed by The California Water and Toxic Enforcement Act of 1986 (Proposition 65) as causing cancer or reproductive toxicity.

Prepared by: Safty and Security Department

Issued: 2015-01-10

Supercedes: Original version

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1.

This MSDS is intended for only the selected countries to which it is applicable. To the best of our knowledge the information contained in this Material Safety Data Sheet is accurate. However, neither Zhejiang NHU Special Material Co.,Ltd, nor any of its affiliates makes any warranty, expressed or implied, or accepts any liability in connection with this information or its use.