



Material Safety Data Sheet

Date : 2015/09/21

1. Chemical Product And Company Identification

Product Name : NYLOY [®] KF-0020N 6221W1
Chemical family : Polyamide resin
Chemical Name : ϵ -Caprolactam resin
Synonyms : Polyamide resin, nylon 6 resin
Product Use : Plastics
Manufacturer/Supplier : Nytex Composites Co., Ltd.
Address : No.6, Ln.468,Sec.4, Changsui Rd., Peitou Hsiang, Changhwa County, Taiwan, R.O.C.
Emergency Phone / Fax : (886)-4-8926225 / (886)-4-8922160

2. Hazards Identification

NYLOY[®] KF-0020N 6221W1 contains no hazardous ingredients. It is not a hazardous product.

Hazards category : Not Applicable
Potential health effects
Likely Routes of Exposure : Skin contact and inhalation.
Eye contact : At room temperature, exposure to vapor are unlikely due to physical properties of the material. At normal processing temperatures, vapor may cause irritation of eyes if ventilation is inadequate. Dusts or mineral fillers may cause eye irritation or corneal injury due to mechanical action as would any foreign object.
Skin contact : No skin absorption due to physical properties of the material. May cause skin irritation due to mechanical abrasion as would any foreign object.
Inhalation : At room temperature, exposure to vapor are unlikely due to physical properties of the material. At normal processing temperatures, vapor may cause irritation via inhalation if ventilation is inadequate. Molten product may cause thermal burns in fire situations. Inhalation of dust or fiber particles can cause irritation as would any foreign object.
Ingestion : No hazards are anticipated from swallowing small amounts incidental to normal handling operations. No adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

3. Composition/Information On Ingredients

Components Name	Weight Percentage (%)	CAS Number
Polyamide 6 Resin	40± 10	25038-54-4
Heat Conductive Mineral Powder	59± 10	
Magnesium Oxide	50± 10	1309-48-4
Aluminium Oxide	4± 4	1344-28-1
Zinc Oxide	5± 5	1314-13-2
Anti-oxide	1±1	6683-19-8

4. First Aid Measures

Emergency And First Aid Procedure
<ul style="list-style-type: none"> • Skin Contact : In case of skin contact, immediate first aid is unlikely to be required. However, this material can be removed with water. Washing off in flowing water or shower. Wash heavily contaminated clothing before reuse. • Inhalation : Remove to fresh air if effects occur. Seek medical advice. • Eye Contact : Flush eyes with plenty of clean water. Seek medical advice if necessary. • Ingestion : Flush mouth with clean water. If swallowed, seek medical advice. Do not induce vomit unless directed to do so by medical personnel.
Prompt To Doctor : No specific antidote. Treatment based on judgement of the doctor in response to reactions of the patient.

5. Fire Fighting Measure

Suitable Extinguishing Media : In case of fire, use water spray, foam, dry chemical, or CO₂.

Special Exposure Hazards : At high temperatures carbon monoxide, carbon dioxide, ammonia, nitrogen, nitrogen oxides and other product of undetermined composition may be emitted. See decomposition products shown below for a more thorough discussion. Thermal decomposition products of nylon (polyamide resin), which may be produced at temperatures in excess of the recommended processing temperatures, have been reported to be irritating to the mucous membranes and respiratory tract.

Special Extinguishing Procedure : Wear self-contained breathing apparatus and protective clothing.

Fire Fighting Equipment : Although adding halogen-free flame retardant to increase resistance to ignition and reduce the rate of burning on minor fire sources, this material is not a noncombustible thermoplastic material which will melt and drip when ignited and give off combustion products. Fire fighters and others exposed to products of combustion should wear self-contained breathing apparatus and protective clothing. Equipment should be thoroughly decontaminated after use.

Unusual Fire and Explosion Hazards : This material, as manufactured, packaged and sold, poses no explosion hazards. In addition, this product poses no explosion hazards under normal conditions of use. However, as with any organic chemicals, particularly with filled mineral filler in this material, if it is milled or ground into a fine powder, the powder/fines could form an explosive mixture when dispersed in a sufficient quantity of air.

6. Accidental Release Measures

Sweep or scoop up and remove.

Resin Pellets on floors are slippery and can cause falls.

Remove solid particles from floors to prevent falls.

Collect material and transfer to appropriate containers for reclamation or disposal.

7. Handling and Storage

This material is for industrial use only.

Precautions to be taken in handling :

Avoid breathing mineral filler dusts, especially handling with mechanical equipment. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing.

Worker should be protected from the possibility of contact with molten material during processing.

Avoid breathing vapor from heated material. Use only with adequate ventilation.

Avoid contact with oxidizing materials.

Other precautions

Conveying lines and equipment in material handling systems should be grounded to eliminate or reduce buildup of static electricity. Avoid sources of ignition as in any area where dust may be produced.

Storage Precaution : Stored in cool and dry place. Keep container tightly closed to prevent moisture absorption and contamination.

8.Exposure Control/Personal Protection

Eye Protection : This product does not cause significant eye irritation or eye toxicity requiring special protection. It is a good industrial practice to minimize eye contact, for example, by using safety glasses to avoid injury of eyes.

Skin Protection : This product does not cause significant skin irritation or skin toxicity requiring special protection. It is a good industrial practice to minimize skin contact. When material is heated, wear glove to protect against thermal burns.

Respiratory Protection : In normal use, active carbon musk or suitable musk is needed to avoid breathing dusts of fumes.

Ventilation : Provide natural or mechanical ventilation to minimize exposure. Using local mechanical exhaust ventilation to remove vapors and fumes liberated during hot processing from the working area is preferred.

Additional Comments : The greatest potential for injury occurs when working with molten nylon such as during the purge of a molding machine, extruder and the like. During this type of operation, it is essential that all workers in the immediate area wear eye protection and skin protection (safety glasses, sleeves, gloves, etc.). Any machine used to process molten nylon should always be completely flushed with a material such as polyethylene or polypropylene before shutdown.

9.Physical And Chemical Properties

Appearance : Pellets

Odor : Essentially odorless

pH Value : Not Applicable

Melting Point : Approx. 220°C

Specific Gravity(H₂O=1) : > 1

Vapor Pressure : Negligible

Vapor Density : Not Applicable

Boiling Point : Not Applicable

Solubility in water : Virtually insoluble in water (at 20°C).

Note : These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10.Stability And Reactivity

Stability : Stable under normal conditions of use, storage and handling.

Materials to Avoid : Strong acids and oxidizing agents.

Hazardous Reaction : No dangerous reaction will occur under normal conditions of

use.

Hazardous Decomposition Products : At normal processing temperatures, water and carbon dioxide are the primary products of emissions. At higher temperatures, carbon monoxide, carbon dioxide, nitrogen, nitrogen oxides, and other product of undetermined composition and toxicity are the major products of decomposition. Processing at high temperatures may release irritating fumes which may include polymer fragments and other decomposition products.

Hazardous Polymerization : Will not occur.

11.Toxicological Information

Nytex has not conducted toxicity studies on this material. However, based on single exposure (acute) animal studies reported on representative nylon resins, this material is considered to be practically nontoxic.

Effects of Exposure to avoid

Inhalation : At elevated temperatures, vapor may be irritating.

Eyes : At elevated temperatures, vapor may be irritating. Molten material will produce thermal burns.

Skin : Molten material will produce thermal burns.

Ingestion : Expected to be a low ingestion hazard.

Additional information

This material contains mineral filler as reinforcement filler. Human exposure to mineral filler dusts has been reported to cause skin and eye irritation as well as respiratory tract irritation

Thermal decomposition products of nylon (polyamide resin), which may be produced at temperatures in excess of the recommended processing temperatures, have been reported to be irritating to the mucous membranes and respiratory tract.

12.Ecological Information

This material has not been tested for environmental effects.

13.Disposal Information

This material should not be dumped, spilled, rinsed or washed into sewers or public waterways. This material when discarded is not a hazardous waste. Discharge, treatment, or disposal may be subjected to national, state or local regulations. Incineration or recycle is recommended. Consult your attorney or appropriate regulatory officials for information on such disposal.

14.Transport Information

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

This product is not hazardous under the DOT, ICAO, or IMDG regulations.

-DOT (USA) Status : Not regulated
-Air- International Civil Aviation Organization (ICAO)
-ICAO Status : Not regulated
Sea- International Maritime Dangerous Goods (IMDG)
-IMDG Status : Not regulated

15.Regulatory Information

Not Applicable.

16.Other Information

We believe the information and recommendations on this data sheet are correct to the best of our current knowledge. However, no warranty is made with respect to its completeness or accuracy. This material safety data sheet does not anticipate all the situation in which this material is processed or all the physical and mental characteristics of each individual who is involved in the processing. It is user's obligation to test and use this material safety data in accordance with every relevant regulation and law. Unless otherwise agreed in writing, no liability is assumed by us for any claims or damages caused in relation to the use of this material. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers.