



BILBYCNC MATERIAL SAFETY DATA SHEET FOR NYLON FILAMENT

Version 1.1

This Material Safety Data Sheet relates to the product known as
BilbyCNC Australian Made Nylon.



1. Chemical Product and Manufacturer Identification

Product name : "AMILAN" Non-Reinforced Grade CM6001, CM6021, M6021, CM6021M, M6021M, CM6021M2, M6021H4, CM6021H4, CM6011, CM6001-GEN, CM6041, CM6041-GEN, M6041, CM6041A, CM6041M, M6041M, CM6041TM, CM6041XFM, M6041M10, CM6041F1, CM6141, M6141, CM6141A, M6151, CM6151, CM6241M, M6241M, CM6241M2, CM6241F, CM6231F, CM6041XFS, CM6041XF, CM6001XF, CM6081XFS, CM6021M30

Name of manufacturer: Toray Industries, Inc

Recommended use of the chemical and restrictions on use :

Recommended use: for automobiles ,electric and electronic device, general use

Use restriction: Do not use for self-contained mechanical device.

If considering use for medical purposes or food container purposes, please contact us in advance about the specific usage.

Product No.(MSDS No.) : D3E-RND030-2

Health Hazards :

Environmental Hazards :

1-1,NIHONBASHI-MUROMACHI 2-CHOME,CHUO-KU,TOKYO 103-8666 JAPAN

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Plastics Technical Dept.

2. Hazards Identification

GHS Classification :

Acute toxicity -Oral : Not classified

Acute toxicity -Dermal : Not classified

Acute toxicity -Inhalation : Not classified

Skin corrosion/irritation : Not classified

Serious eye damage/eye irritation : Not classified

Respiratory sensitization : Classification not possible

Skin sensitization : Classification not possible

Germ cell mutagenicity : Classification not possible

Carcinogenicity : Classification not possible

Reproductive toxicity : Classification not possible

Specific Target Organ/Systemic Toxicity (Single Exposure) : Classification not possible

Specific Target Organ/Systemic Toxicity (Repeated Exposure) : Not classified

Aspiration hazards : Classification not possible

Health Hazards :

Hazardous to the aquatic environment (Acute) : Not classified

Hazardous to the aquatic environment (Chronic) : Not classified

Other hazards which are not covered by the GHS :

Volatile gases which may irritate eyes, nose and throat may be released.

Use adequate local exhaust ventilation during drying and molding.

Get medical advice if you feel unwell.

Sweep up and dispose of spilled resin to eliminate slipping hazard.

Do not pile up bags too high in order to avoid injury caused by falling of the product.

3. Composition/Information on Ingredients

Substance/Mixture : Mixture

Chemical Name : Poly(epsilon-caproamide/hexamethylene adipamide)copolymer resin

Synonyms : Polyamide-6/66 copolymer resin, Nylon-6/66 copolymer resin

Common chemical name : Poly(epsilon-caproamide/hexamethylene adipamide)

Composition(%) : 99-100

Chemical formula(Constitutional/Structural formula)

$(C_6H_{11}NO)_m/(C_{12}H_{22}N_2O_2)_n$

CAS No. : 24993-04-2

ENCS No. : 7-365

ISHL No. : 7-365

TSCA : Regd.

4. First-Aid Measures

Inhalation :

Remove the victim from the contamination immediately to fresh air.

Evacuate victim that inhaled gas from the molten polymer to fresh air.

Seek medical advice, if victim does not recover.

Skin contact :

If a person touches the molten polymer, cool the affected part with fresh water.

Do not try to remove the polymer by force and seek medical advice if the person got burnt.

Eye contact :

Gently rinse the affected eyes with clean water for at least 15 minutes. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.

Have the victim remove contact lenses if he is wearing them and continue rinsing.

Do not let the victim rub his eyes.

Ingestion :

Rinse mouth with water. Give the person one or two glasses of water, try to get the victim to vomit by putting a finger in the throat.

If you feel unwell after vomit, seek medical advice .

Protective measures for a first aid person :

Wear protection gloves when removing melting polymer or high temperature polymer.

5. Fire-Fighting Measures

Extinguishing Media :

S43-In case of fire, use water mist, water jet, foam, dry powder, CO2

Specific Hazards under fire :S41-In case of fire and/or explosion do not breathe fumes.

Toxic gases will form upon combustion of :carbon monoxide, a small amount of hydrogen cyanide etc.

Fires involving this material produce large amounts of sooty smoke.

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Specific fire-fighting measures : Apply water from a safe distance to cool and protect surrounding area.

Move container from fire areas if it can be done without risk.

Keep personnel removed from and upwind of fire.

Evacuate non-essential personnel to safe area.

Protection of fire-fighters : Fire-fighters should wear proper protective equipment

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures :

Sweep up spilled pellets on road or floor to avoid tripping.

Measures for environmental effects :

Do not wash away into shower or waterway.

If pellets got released in environment, take adequate steps to prevent aquatic animals and birds dying from eating pellets.

Methods and materials for containment and cleaning up :

Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident :

Shut off all sources of ignition; No flares, smoking or flames in area.

7. Handling and Storage

Handling :

Preventive measures :

Exposure control for handling personnel :

S20-When using do not eat or drink.

S21-When using do not smoke.

S22-Do not breathe dust.

S23-Do not breathe gas fumes

S51-Use only in the well-ventilated areas.

Protective measures against fire & explosion :

Do not carelessly use fire nearby.

Take precautionary actions of powder-dust explosion, if powder-dust occurred during secondary process.

Local ventilation / Total air ventilation :

Do not inhale the gas and fumes generated during moulding.

Safety treatments :

Prevent deposition of dust.

Good general ventilation should be sufficient for most conditions.

Do not keep this material under high temperature condition for a long time.

Do not touch high temperature resin without protector.

Plastics pellets easily generates static electricity, so take countermeasures to eliminate static electricity if necessary.

Safety Measures/Incompatibility :

S29-Do not empty into drains

Protect against physical damage

Do not drop onto, or slide across sharp objects
Avoid rough handling or dropping
See information on each ingredients if powder-dust occurs

Recommendations for Storage :

This material is flammable
Follow fire defence and local regulations for storage and handling
S15– Keep away from heat
S16- Keep away from sources of ignition—No smoking
Keep away from heat source, steam pipe and direct sunlight.
Store in a cool place

8. Exposure Control/Personal Protection

Engineering measures:

When Processing, partial ventilation is desirable to eliminate generated gas and powder-dust.

Adopted Value :

Japan Society for Occupational Health and ACGIH do not determine adopted value of powder-dust of Nylon resin.

Generally, data shown below is known about dusts.

Recommended value of Japan Society for Occupational Health(2006)

Third class dust

The weighted average per hour: inhaled dusts 2mg/m³

total dusts 8mg/m³

Recommend value of ACGIH(2006) General dust:

The weighted average per hour: inhaled dusts 3mg/m³

total dusts 10mg/m³

Personal protective equipment :

Respiratory protection :

S38-In case of insufficient ventilation, wear suitable respiratory equipment.

Against powder-dust: protective mask for powder-dust

Against gas from molten polymer: protective mask for organic gas

Hand protection :

S37-Wear suitable gloves.

Wear protection gloves of heat-resistance when handling melting polymer.

Eye protection :

Wear protective eyeglasses or chemical safety goggles

Skin and body protection :

S36-Wear suitable protective clothing.

It is desirable to put on long sleeve clothing so as not to touch skin directly.

Wear protection clothing of heat-resistance when handling melting polymer.

Safety and Health measures :

Wash hands before breaks and at the end of work.

Do not eat, drink or smoke at work.

9. Physical and Chemical Properties

Physical properties :

Appearance : solid thread/filament

Color : clear/white

Odor : None

pH : Not Available

Phase change temperature :

Boiling point : None

Boiling range(Mixture) : None
Melting point : 184-214°C
Decomposition temperature : No data
Flash point : Not Available
Ignition temperature : >400°C
Explosion : Not Available
Vapour pressure : None
Vapour density : None
Density : 1120-1140kg/m³
Octanol /water partition coefficient : Not Available

10. Stability and Reactivity

Stability :This product is considered a stable material under normal and anticipated storage and handling conditions.

Possibility of hazardous reactions : This product is considered a stable material under normal and anticipated storage and handling conditions.

Dangerous condition : direct sunlight, fire, heat, etc.

Incompatible materials :None

Decomposition products :During burning, black smoke, carbon dioxide, carbon monoxide, nitrogen oxide may be produced.

11. Toxicological Information

Acute toxicity :Not classified.

It is classified into "Not classified" based on judgment theory of a mixture.

Skin corrosion/irritation :Not classified.

It is classified into "Not classified" based on judgment theory of a mixture.

Serious eye damage/eye irritation :Not classified.

It is classified into "Not classified" based on judgment theory of a mixture.

Respiratory or skin sensitization :Classification not possible.(N.A.)

Germ cell mutagenicity :Classification not possible.(N.A.)

Carcinogenic effects :Classification not possible.(N.A.)

Toxicity for reproduction :Classification not possible.(N.A.)

Specific Target Organ/Systemic Toxicity (Single Exposure) :Classification not possible.(N.A.)

Specific Target Organ/Systemic Toxicity (Repeated Exposure): Not classified.

It is classified into "Not classified" based on judgment theory of a mixture.

Aspiration hazards :Classification not possible.(N.A.)

Others: As for articles that are "Classification not possible", there are no instances reported on harmful effects to health and environment, according to recent datum.

12. Ecological Information

Hazardous to the aquatic environment/Acute :Not classified.

It's classified into "Not classified" based on judgment theory of a mixture.

Hazardous to the aquatic environment/Chronic :Not classified.

It's classified into "Not classified" based on judgment theory of a mixture.

13. Disposal Consideration

Dispose to an authorized waste collection point.

Follow the local law and regulations of waste disposal and prevention against public nuisance
Do not cast waste (waste fluid, solid waste and washing drainage etc.) that includes this product directly into a river, or bury it underground.

Check if there is no resin left, if disposing the package after use. (paper package, flexible container etc.)

Follow the local law and regulations of waste disposal.

Do not use the package for other purposes.

14. Transport Information

International guide line : n/a

Specific safety measures and conditions on transport :

Covering is necessary for shutting off sunlight and rain.

Handle gently to avoid damaging bags.

15. Other Information/References

The information relates to this specific material. It may not be valid for this material, if used in combination with any other materials or in any process. It is the user's responsibility to satisfy him-selves as to the suitability and completeness of this information for his own particular use.

The information herein is given in good faith, but no warranty, express or implied, is made.

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

Resin is usually safe itself, so as for the calculation of division, acute toxicity (oral) is calculated by LD50 as more than 10000.