CREATED 2014/03/07
UPDATED 2018/06/14

Safety Data Sheet

1. Identification of the substance/mixture and of the company

1.1 Product identifier

"AMILAN" Non-Reinforced Grade UTN310(U310), UTN320(U320)
UTN310(U310), UTN320(U320)

1.2 Other means of identification

Product No.(SDS No.) R3E-AB0AA0RNB220-4-1

1.3 Recommended use of the chemical and restrictions on use

(1)Recommended use

For automobiles, electric and electronic device, general use

(2)Restrictions on use

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.

1.4 Supplier's details

(1)Company name	Toray Industries, Inc.
(2)Address	1-1, NIHONBASHI-MUROMACHI 2-CHOME, CHUO-KU, TOKYO 103-8666 JAPAN
(3)Department	Nylon Polymers Dept., Automotive Products 1st Dept., Automotive Products 2nd Dept.
(4)Person in charge	General Manager
(5)Telephone number	+81-3-3245-5500, +81-52-583-8234, +81-3-3245-5495
(6)FAX number	+81-3-3245-5515, +81-52-583-8216, +81-3-3245-5498
(7)E-mail Address/URL	http://www.toray.com/plastics/

1.5 Emergency phone number +81-3-3245-5500, +81-52-583-8234, +81-3-3245-5495

2. Hazards Identification

2.1 GHS Classification

This product is not classified under hazardous according to JIS Z 7252: 2014 (Labeling of chemicals based on GHS).

2.2 GHS label elements

Not applicable

2.3 Other hazards which do not result in classification

Nothing in particular.

2.4 Major symptom and envisioned emergencies

No information available.

3. Composition/Information on Ingredients

(1)Substance/Mixture	Mixture
(2)Product identity(chemical name, common name)	Poly(hexamethylene adipamide) resin
Synonym(s)	Polyamide-66 resin, Nylon-66 resin

(3)Composition/information on ingredients

A.Information on ingredients

Chemical identity of the substance	Poly(hexamethylene adipamide)
Content(%)	75-95
Chemical property(chemical formula, structural formula)	[NH(CH2)6NHCO(CH2)4CO]n
CAS No.	32131-17-2
ENCS No.(Chemical Substances Control Law)	7-382
ISHL No.(Industrial Safety and Health Act)	7-382
TSCA	Registered

EC No.	Monomer Registered
Inventory of Existing Chemical Substances in China (IECSC)	Registered

Chemical identity of the substance	Elastomer
Content(%)	5-25
Chemical property(chemical formula, structural formula)	-
CAS No.	Nondisclosure(Registered)
ENCS No.(Chemical Substances Control Law)	Registered
ISHL No.(Industrial Safety and Health Act)	Registered
TSCA	Registered
EC No.	Monomer Registered
Inventory of Existing Chemical Substances in China (IECSC)	Registered

Inventory of Existing Chemical Substances in China (IECSC): It is confirmed that infinitesimal materials are not registered.

4. First-aid measures

4.1 Description of first aid measures

(1)Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

Seek medical advice, if victim does not recover.

(2)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.

(3)Eye contact

Remove contact lenses, if present and easy to do. Continue rinsing.

Rinse your eyes gently with clean water for at least 15 minutes. Consult a doctor to receive medical treatment as soon as possible.

Do not let the victim rub his eyes/keep his eyes tightly closed.

(4)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.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

5. Firefighting measures

5.1 Extinguishing media

(1)Suitable extinguishing media

Water spray/Water jet/Foam/Powder/Carbon dioxide (CO2)

(2)Unsuitable extinguishing media

Nothing in particular.

5.2 Special hazards arising from the substance or mixture

In case of fire or explosion, do not inhale fumes.

Toxic fumes or gas formed during combustion (Carbon monoxide/a small amount of hydrogen cyanide etc.).

5.3 Specific fire-fighting measures

Protect surrounding equipment by spraying water from a safe distance.

Remove movable containers from the area of the fire if safe to do so.

Be sure to extinguish a fire from the windward side and keep a safe distance from a fire.

Evacuate non-essential personnel to safe area.

5.4 Special protective actions for fire-fighters

Fire-fighting personnel should wear proper protective equipment.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

Do not discharge to sewers or into drain.

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

6.3 Methods and materials for containment and cleaning up

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

6.4 Preventive measures against second disasters

Remove possible sources of ignition in the surrounding area.

7. Handling and storage

7.1 Precautions for safe handling

(1)Technical measures

A. Exposure control of handler

Do not breathe dust/fume/gas.

Do not eat or smoke except the specified area.

Use only in the well-ventilated areas.

B.Prevention of fire/explosion

Do not carelessly use fire nearby.

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

(2)Local/general exhaust ventilation

Do not inhale the gas and fumes generated during molding.

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.

(3)Precautions

Prevent deposition of dust.

Good general ventilation should be sufficient for most conditions.

Do not touch high temperature resin without protector.

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

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

(4)Precautions for safe handling

Do not damage containers.

Avoid contact of containers with sharp edges.

Avoid rough handling or dropping.

See information on each ingredient if powder-dust occurs.

Do not empty into drains.

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.

(5) Proper hygiene measures

Wash hands before intermissions or and after work.

Do not eat or smoke while working.

7.2 Conditions for safe storage, including any incompatibilities

(1)Technical measure

No information available.

(2)Proper storage condition

This material is flammable.

Follow fire defense law and local regulations for storage and handling.

(3)Storage condition to avoid

Keep fire away.

Keep away from heat source, steam pipe and direct sunlight. Store in cool places.

(4)Safe container materials

No information available.

8. Exposure Control/Personal Protection

8.1 Control parameters

(1)Administrative levels (Industrial Safety and Health Act)

Administrative levels are not established.

(2)Occupational exposure limits

Japan Society for Occupational Health and ACGIH do not determine adopted value about powder-dust of resin. Generally, data shown below is known about dust.

Recommended value of Japan Society for Occupational Health(2017)

Third class dust

The weighted average per hour: respirable dust 2mg/m3, total dust 8mg/m3

Recommend value of ACGIH(2017)

General dust

The weighted average per hour: respirable dust 3mg/m3, total dust 10mg/m3

(3)DNEL(Derived No Effect Level)

No information available.

(4)PNEC(Predicted No Effect Concentration)

No information available.

8.2 Exposure controls

When processing; partial ventilation is desirable to eliminate generated gas and powder-dust.

8.3 Individual protection measures

(1)Respiratory protection

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

(2)Hand protection

Wear protective gloves.

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

(3)Eye/face protection

Wear protective glasses or safety goggles.

(4)Skin and body protection

Wear 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.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

(1)Appearance

A.Physical state

Solid(pellet)

B.Color

White

(2)Odour

Odourless

(3)Odour threshold

No information available.

(4)pH

Not applicable.

(5)Melting point/freezing point

265°C

(6)Initial boiling point and boiling range

Nothing.

(7)Flash point

Not available.

(8)Evaporation rate

Not applicable.

(9)Flammability (solid, gas)

Not available.

(10)Upper/lower flammability or explosive limits

Not available.

(11)Vapour pressure

No information available.

(12)Vapour density

No information available.

(13)Specific gravity (Relative density)

1.09-1.12

(14)Solubility

No information available.

(15) Partition coefficient: n-octanol/water

No information available.

(16)Auto-ignition temperature

>400°C

(17)Decomposition temperature

No information available.

(18)Viscosity

No information available.

(19)Explosive properties

Nothing.

(20)Oxidising properties

Nothing.

9.2 Other information

No information available.

10. Stability and reactivity

10.1 Reactivity

Nothing in particular.

10.2 Chemical stability

This product is considered stable under ordinary storage and handling condition.

10.3 Possibility of hazardous reactions

This product is considered stable under ordinary storage and handling condition.

10.4 Conditions to avoid

Direct sunlight, fire, heat, etc.

10.5 Incompatible materials

Nothing in particular.

10.6 Hazardous decomposition products

During burning, black smoke, carbon dioxide, carbon monoxide, nitrogen oxide and others may be produced.

11. Toxicological Information

(1)Acute toxicity

Classification not possible.(N.A.)

(2)Skin corrosion/irritation

Classification not possible.(N.A.)

(3)Serious eye damage/eye irritation

Classification not possible.(N.A.)

(4)Sensitization, respiratory/skin

Classification not possible.(N.A.)

(5)Germ cell mutagenicity

Classification not possible.(N.A.)

(6)Carcinogenicity

Classification not possible.(N.A.)

(7)Reproductive toxicity

Classification not possible.(N.A.)

(8)Specific target organ toxicity/single exposure

Classification not possible.(N.A.)

(9)Specific target organ toxicity/repeated exposure

Classification not possible.(N.A.)

(10)Aspiration hazard

Classification not possible.(N.A.)

(11)Other hazard(s)

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

12.1 Ecotoxicity

(1)Acute(short-term)

Classification not possible.(N.A.)

(2)Chronic(long-term)

Classification not possible.(N.A.)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Adverse effect to the ozone layer

No information available.

12.6 Other adverse effect(s)

No information available.

13. Disposal considerations

13.1 Waste treatment methods

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

14.1 UN number Not applicable.
14.2 UN proper shipping name Not applicable.
14.3 Transport hazard class(es) Not applicable.
14.4 Packing group Not applicable.
14.5 Environmental hazards Not applicable.
14.6 Special precautions for user
No information available.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.
14.8 The Laws and Regulations for transportation in Japan
Land transportation Not applicable.
Marine transportation Not applicable.
Air transportation Not applicable.
14.9 Specific safety measures and conditions on transport :
Covering is necessary for shutting off sunlight and rain.
Handle gently to avoid damaging bags.
Caution for slipping by the scattered pellets.
14.10 ERG Guide No.
Not applicable.

15. Regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region; therefore, we request this matter would be filled by your responsibility.
Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other Information/References

Date of issue/Date of revision
Date of revision 2018/06/14
Revised item Deletion of three grades
Reference
JIS Z 7252(2014): Classification of chemicals based on "Globally Harmonized System of Classification and Labeling of Chemicals (GHS)"
JIS Z 7253(2012): Hazard communication of chemicals based on GHS-Labeling and Safety Data Sheet (SDS)
Information of suppliers SDS
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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.