CREATED 2014/04/16
UPDATED 2014/07/24

Safety Data Sheet

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

1.1 Product identifier

"TOYOLAC" 700 (Suffix:314)

1.2 Other means of identification

Product No.(SDS No.) R3E-HA0A00RA700314N-3-1

1.3 Recommended use of the chemical and restrictions on use

(1)Recommended use

For household appliance, electronic materials, industrial materials.

(2)Restrictions on use

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1.4 Supplier's details

(1)Company name	Toray Industries, Inc.
(2)Address	Nihonbashi Mitsui Tower, 1-1, Nihonbashi-Muromachi 2-chome,Chuo-ku, Tokyo 103-8666, Japan
(3)Department	TOYOLAC Dept., Automotive Products Dept.
(4)Person in charge	TOYOLAC Dept.Manager, Automotive Products Dept.Manager
(5)Telephone number	+81-3-3245-5506, 5495
(6)FAX number	+81-3-3245-5507, 5498
(7)E-mail Address/URL	http://www.toray.jp/plastics/

1.5 Emergency phone number +81-3-3245-5506, 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

Small amount of volatile gases may be released and may irritate eyes, nose and throat.
Use adequate local exhaust ventilation during drying and molding.
Sweep up and dispose of spilled resin to eliminate slipping hazard.
Don't pile up too high in order to avoid injury caused by falling of the product.

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)

Mixture of Acrylonitrile-Butadiene-Styrene Copolymers and additives

Synonym(s)

ABS Resin

(3)Composition/information on ingredients

A.Information on ingredients

Chemical identity of the substance

Acrylonitrile-Butadiene-Styrene Copolymer(A)

(or Mixture of (A) , Acrylonitrile-Styrene Copolymer(B) and/or Copolymer of Acrylonitrile, Styrene and other component(C))

Content(%)	95% or more
Chemical property(chemical formula, structural formula)	
(A)-[(C8H8)k-(C3H3N)L-(C4H6)m]n-	
(B)-[(C8H8)k-(C3H3N)L]m-	
CAS No.	(A)9003-56-9, (B)9003-54-7, (C)Regd.
ENCS No.(Chemical Substances Control Law)	(A)6-176, (B)6-126, (C)Regd.
ISHL No.(Industrial Safety and Health Act)	(A)Existing, (B)Existing, (C)Existing

Chemical identity of the substance

addtives

Content(%)	5% or less
CAS No.	Regd.
ENCS No.(Chemical Substances Control Law)	Regd.
ISHL No.(Industrial Safety and Health Act)	Existing

C.Impurities

Chemical identity of the substance

Styrene

Content(%)	0.05-0.2%
Chemical property(chemical formula, structural formula)	
C8H8	
CAS No.	100-42-5
ENCS No.(Chemical Substances Control Law)	3-4
Notifiable number for ISHL	323
Contribute to GHS classification of the substance/mixture or not	Not contribute

4. First-aid measures

4.1 Description of first aid measures

(1)Inhalation

Call a POISON CENTER or doctor/physician if you feel unwell.

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

It is hard to happen to inhale a pellet.

If you breathe the much gas and fume from melting resin, remove casualty to fresh air.

Make sure that the victim sees a physician, if he has a cough or dyspnea.

(2)Skin contact

Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse with water. If you touch the aggregates of the gas from the melting resin, wash the affected area under water using a mild soap.

If you touch melting resin, wash immediately with cold water and seek medical advice.

(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

Call a POISON CENTER or doctor/physician if you feel unwell.

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

Toxic fumes or gas formed during combustion (Carbon monoxide/Nitrogen Oxides/Carbon dioxide etc.).

Fires involving this material produce large amounts of sooty smoke.

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

Firefighters 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.

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/gas/fume.

Do not eat, drink or smoke when using this product.

B.Prevention of fire/explosion

Take precautionary measures against static discharges.

(2)Local/general exhaust ventilation

Because gas is generated when handling molten resin with molding machine or extruder, use adequate local ventilation.

In addition, in a building, the work space carrying out above work, try for total air ventilation with ventilation fans and soon.

(3)Precautions

Prevent deposition of dust.

(4)Precautions for safe handling

Do not damage containers.

Avoid contact of containers with sharp edges.

Don't breathe the gas generated by processing, because it stimulates skin and respiratory organs and it is possible to feel unwell if you breathe many gas.

Prevent deposition of dust, because a dust explosion may happen by static electricity or electric spark.

(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.

Keep away from direct sunlight, water leak, moisture and sources of heat and ignition. Store in the well-ventilated place and locked up.

(3)Storage condition to avoid

Keep fire away.

(4)Safe container materials

Use unbreakable container and packaging materials satisfied storage condition.

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 of powder-dust of ABS resin.

Generally, data shown below is known about dusts.

Recommended value of Japan Society for Occupational Health(2011) Class 3 dusts

The weighted average per hour : Respirable dust 2mg/m3,Total dust 8mg/m3

Recommend value of ACGIH(2011) General dust

The weighted average per hour : Inhalation 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

Because gas is generated when higt temperature processing,use adequate local ventilation to keep comfortable work environment.

8.3 Individual protection measures

(1)Respiratory protection

Because dust is generated when processing with machine, sanding and so on, wear dust protective mask.When you may inhale gas and fume, wear respirator for organic gas.

(2)Hand protection

It is desirable to wear protection gloves so as not to touch skin directly.

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

It is desirable to wear 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-shaped)

B.Color

Pale yellow

(2)Odour

none

(3)Odour threshold

No information available.

(4)pH

Not applicable.

(5)Melting point/freezing point

This Product gradually becomes soft over a broad range . (between 130-150 degree)

(6)Initial boiling point and boiling range

No information available.

(7)Flash point

No information available.

(8)Evaporation rate

No information available.

(9)Flammability (solid, gas)

No information available.

(10)Upper/lower flammability or explosive limits

Upper limits No information available.

Lower limits Lower limits 60g/m3(particle size<0.2mm)

(11)Vapour pressure

No information available.

(12)Vapour density

No information available.

(13)Specific gravity (Relative density)

1.01-1.07

(14)Solubility

Insoluble in water. The resin part is soluble in organic solvent.

(15) Partition coefficient: n-octanol/water

No information available.

(16)Auto-ignition temperature

about 405 degree

(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 a stable material under normal and anticipated storage and handling conditions.

10.4 Conditions to avoid

Direct sunlight, fire, sources of heat, etc.

10.5 Incompatible materials

Nothing in particular.

10.6 Hazardous decomposition products

Black smoke, carbon dioxide, carbon monoxide, nitrogen oxide and so on may be generated in the case of combustion.

11. Toxicological Information

(1)Acute toxicity

Not classified.

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

(2)Skin corrosion/irritation

Classification not possible.(No information available.)

(3)Sensitization, respiratory/skin

Classification not possible.(No information available.)

(4)Serious eye damage/eye irritation

Classification not possible.(No information available.)

(5)Germ cell mutagenicity

Not classified.

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

(6)Carcinogenicity

Not classified.

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

(7)Reproductive toxicity

Not classified.

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

(8)Specific target organ toxicity/single exposure

Not classified.

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

(9)Specific target organ toxicity/repeated exposure

Not classified.

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

(10)Aspiration hazard

Classification not possible.(No information available.)

(11)Other hazard(s)

No information available.

12. Ecological Information

12.1 Ecotoxicity

(1)Acute(short-term)

Not classified.

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

(2)Chronic(long-term)

Not classified.

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

12.2 Persistence and degradability

Classification not possible.(No information available.)

12.3 Bioaccumulative potential

Classification not possible.(No information available.)

12.4 Mobility in soil

Classification not possible.(No information available.)

12.5 Adverse effect to the ozone layer

Classification not possible.(No information available.)

12.6 Other adverse effect(s)

No information available.

13. Disposal considerations

13.1 Waste treatment methods

Dump the waste matters following law, rules and regulations.

Dispose to an authorized waste collection point.

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.)

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 :

Avoid wetting or rough handling so that the packaging will not be damaged. In case the bags are damaged and the pellets are scattered, pay attention so that no one will slip and fall.

All of the materials that spilled shall be rapidly collected.

Take precautionary measures against static discharges when using pneumatic transportation.

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 issue	2014/07/24
Revised item	We revised the contents of SDS according to the revision of JIS Z 7253:2012.

Disclaimer

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