TOSOH

SDS No. C0050203700 EX

SAFETY DATA SHEET
（ S D S ）

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Revised date	June 17,2016
Ver.	GD01

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND THE SUPPLIER

Product Name	CORONATE 2037
Manufacturer	TOSOH CORPORATION
Address	3-8-2,SHIBA,MINATO-KU,TOKYO 105-8623, JAPAN
Department in charge	Urethane Division +81-3-5427-6340
Emergency phone number	Urethane Division +81-3-5427-6340

Recommended use and restrictions on use

General industrial products

2. HAZARD IDENTIFICATION

GHS classification

Flammable gases:	Not applicable
Oxidizing gases:	Not applicable
Gases under pressure:	Not applicable
Flammable liquids:	Category 3
Flammable solids:	Not applicable
Oxidizing liquids:	Classification not possible
Corrosive to metals:	Classification not possible
Acute toxicity	
Oral:	Not classified
Dermal:	Not classified
Inhalation(Gases):	Not applicable
Inhalation(Vapours):	Category 3
Inhalation(Dusts/Mists):	Category 4
Skin corrosion/Irritation:	Classification not possible
Serious eye damage/eye irritation:	Category 2
Sensitization	
Respiratory:	Classification not possible
Skin:	Classification not possible
Germ cell mutagenicity:	Classification not possible
Carcinogenicity:	Classification not possible
Reproductive toxicity:	Classification not possible
Specific target organ toxicity (Single exposure):	Category 1 (Central nervous system) Category 2（Lung） Category 3 (Respiratory tract irritation)
Specific target organ toxicity (Repeated exposure):	Classification not possible
Aspiration hazard:	Classification not possible

Aquatic environment

Acute hazard:	Category 3
Long-term hazard:	Classification not possible
Hazardous to the Ozone layer:	Classification not possible

GHS label elements

Danger

Hazard Statement:

Flammable liquid and vapour

Causes serious eye irritation

Toxic if inhaled

May cause respiratory irritation

Harmful to aquatic life

Causes damage to Central nervous system

May cause damage to Lung

Harmful if inhaled.

Precautionary statement:

≪Precautionary measures≫

Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

Take precautionary measures against static discharge.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Use only outdoors or in a well-ventilated area.

If this is not the intended use, avoid release to the environment.

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

Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use. Do not handle until all precautions have been read and understood.

Keep container tightly closed. (There is a danger of explosion if the carbon dioxide generated when water enters.)

Not to treat an allergic reaction to a person.

≪Measures to be taken≫

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

When feeling is bad, communicates to the doctor.

If swallowed: Rinse mouth with water. Do not induce vomiting. To contact a doctor immediately.

In case of fire: Use dry chemical powder, carbon dioxide, foam, large volumes of water spray.

Wash contaminated clothing before re-using.

If on skin: Wash with plenty of soap and water.

≪Storage≫

Store in a well-ventilated place. Keep cool.

≪Disposal≫

Consign dispose of the contents and container to the disposal-specialized services approved by a prefectural governor.

Other hazards which do not result in GHS classification:

No information available

Important symptoms:

No information available

Summary of assumed emergency:

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification of the chemical substance or/mixture:

Mixture

Chemical name or common name:

Polyisocyanate solution

Concentration or concentration range:

Chemical name or common name	Abbreviation	Concentration or concentration range	Reference number in Gazetted List in Japan		CAS No
			Japanese Chemical Substances Control Law (JCSCL)	Japanese Industrial Safety and Health Law	
Modified polyisocyanate	−	50%	7-875	Existence	Trade secret
Butyl acetate	−	50%	2-731	Existence	123-86-4

Chemical formula:

Not available

Component subject to regulation:

Ingredient	Japanese Industrial Safety and Health Law	Japanese PRTR Law (Pollutant Release and Transfer Register)
Modified polyisocyanate	Not applicable to the substances for labelling/deliver of documents required in Japanese Industrial Safety and Health Law	Not applicable to the specified chemical substances of Japanese PRTR Law
Butyl acetate	Japanese Industrial Safety and Health Law (Article 57-1 of the Law) -Labeling, etc Number 9 の 10 / 181	Not applicable to the specified chemical substances of Japanese PRTR Law

PRTR Law shows the information for each chemical substances since April, 2010

Chemical name：Butyl acetate Contents：50% CAS No.：123-86-4

Impurities and stabilizing additives which contribute to the classification of GHS:

No information available

4. FIRST-AID MEASURES

IF INHALED:

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

Wrap the body with blanket, etc. and keep warm and at rest.

Make an arrangement to get medical attention immediately.

IF ON SKIN:

Even if neither pain nor any changes in appearance occur soon, get medical advice surely, since damage may be delayed.

IF IN EYES:

After washing eyes with clean water for at least 15 minutes, immediately get medical attention. During washing eyes, open eyelids with fingers and wash so that water can flow all over the eyeball and eyelid.

IF SWALLOWED:

Do not induce vomiting.

Rinse mouth well. Spit it in person voluntarily if possible, to vomit. Seek medical advice/attention immediately.

Most important effects and symptoms:

No information available

Protection for first-aid responders:

First-aid responders should wear protective equipment such as rubber gloves and a closed goggle, etc.

Note to physician:

No information available

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Dry chemical powder, carbon dioxide, foam, large volume of water spray.

Unsuitable extinguishing media:

Water bar

Specific hazards arising from the chemical if burning:

There is a risk of generating a hazard gas in a fire.

Specific fire fighting measures:

Fight fire from upwind side.

Take any appropriate measures so that the materials which may influence the environment are not washed away by the fire fighting water.

Wear self-contained breathing apparatus and protective gloves, because cracked gas and steam are generated in the case of fire. Water is drained off to the drum, container etc. that have not ignited, and it tries to prevent fire spreading, overheating, and explosion of containers.

After the fire is extinguished, neutralize the spilled material with decontaminant. Do not let outsiders enter the place fire.

Special protective equipment for fire fighter:

During fire-fighting, wear heat resistance gloves, safety goggles, and breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

In case of indoors, conduct ventilation sufficiently until the disposal is completed.

During working, wear protective equipment stated in “Section 8. Exposure controls and personal protection” so as to prevent adhering powder to the skin and inhalation of gas.

Wear safety glasses, rubber gloves, a gas mask for organic gas.

Immediately remove all sources of ignition and flammable material. In case of fire, use powder or foam as extinguishing media.

Restrict entry of unauthorized personnel. To work from the windward. Evacuate people downwind.

Environmental precautions:

Adhered and collected waste material should be promptly disposed of, in accordance with appropriate laws and regulations.

Do not flow directly into rivers and sewage spill.

Method of cleaning up:

Small spill : Sprayed with a neutralizing agent to neutralize. Remove adsorbed sand, earth, sawdust, etc. If wiping rags, waste paper, etc., remove and store in a container with a lid.

Large spill : As spilled liquid can not spread, enclosed sand, earth, sawdust, etc. Recovered in the liquid container as much as possible. Collection container must not be sealed. Which could not be recovered sprayed with a neutralizing agent to neutralize or Removed by the above method. Wash the spillage area clean with water.

Prevention measures of secondary disaster:

Immediately remove the nearby ignition source, and prepare fire extinguishing agent.

Use safe tools which will not generate sparks.

7. HANDLING AND STORAGE

Handling

Appropriate engineering controls:

Take facility measures stated in “Section 8. Exposure controls and personal protection” and wear protective equipment.

Handle in a place with good ventilation.

Local and entire ventilation:

Conduct local or entire exhaust ventilation stated in “Section 8. Exposure controls and personal protection.”

General precautions:

No information available

Safe handling advice:

Apparatuses shall be explosion-proof structure, and equipment shall be anti-static.

If a higher pressure in the container, remove the lid and remove the pressure slightly loosen the lid. Do not the filling of container this products to the unwashed containers and attached water containers.

The operator should be trained in handling this product.

Hygiene measures:

Wash hands thoroughly and gargle after working, and eat and drink.

Storage

Appropriate engineering controls:

Keep container tightly closed, and store in a well-ventilated place.

If stored outdoors, the container should be covered with waterproof canvas sheet to avoid being exposed in the rain.

Safe storage conditions:

Once a container is opened, the container should be sealed with dry nitrogen or dry air (dew point < -30℃) and be closed tightly.

Safe containers and packaging materials:

Containers which are prescribed in Fire and Disaster Management Act and UN transport regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Facility measures

Use closed type apparatuses and equipment or local exhaust ventilation.

Provede hand washing and eyewash facility, near the handling equipment, and display the location.

Administrative levels

Butyl acetate 150ppm

Occupational Exposure Limits

Butyl acetate	100ppm		Japan Society for Occupational Health
Butyl acetate	150ppm	TWA	ACGIH
Butyl acetate	200ppm	STEL	ACGIH

Personal protective equipment

Respiratory protection:

Respirator for organic gases

Hand protection

Safety gloves made from rubbers or plastics (impermeable)

Eyes Protection:

Protective glasses with side version or protection goggles

Skin and body protection:

Long sleeve work protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Pale yellow
Odour(Odour threshold):	Aromatic odor
pH:	Not Applicable
Melting point/Freezing point:	No information available
Boiling point:	No information available
Initial boiling point:	No information available
Boiling range:	Unknown
Flash point:	30 ℃ determined by closed cup flash test. (Sealed Seta)
Evaporation rate:	Unknown
Flammability (solid, gas):	Unknown
Lower flammability or explosive limits:	No data.
Upper flammability or explosive limits:	No data.
Vapor pressure:	No information available
Vapor density:	No information available
Specific gravity (Relative density):	1.09 g/cm3 (25 ℃)
Solubility:	slightly soluble(Water) Soluble(Toluene) Soluble(ethyl acetate) Soluble(Acetone)
Partition coefficient; n-octanol/water:	For Butyl acetate : log Pow 1.82 (octanol/water partition coefficient)
Auto-ignition temperature:	No information available
Decomposition temperature:	Unknown
Viscosity:	1200 mPa·s (25 ℃)

Other information: No information available

10. STABILITY AND REACTIVITY

Stability	Flammability	some
	Ignition quality	na
	Oxidizing	na
	Self-reactive, Explosiveness	na
	Explosive dust	na
	Other	na

Reactivity

Exothermic react with water forming CO_2. Exothermic react with active-hydrogen compound (alcohols, amine and so on). The polymerization reaction with an alkaline substance, a tertiary amine and so on.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Butyl acetate	Oral(rat) : Not classified : LD50=14.13g/kg(ACGIH, 2001) Inhalation(gas) : Not applicable : Liquid(GHS definition) Inhalation(vapour) (rat) : Category3 : LC50=2,000ppm(ACGIH, 2001),Classification by the reference value of gas(90% or less of the saturated vapour pressure concentration) Inhalation(dust, mist) (rat) : Category4 : LC50=391ppm(1.85mg/L) (ACGIH, 2001)

Skin corrosion/Irritation:

Butyl acetate	(man) MILD SKIN IRRITATION (AGCIH, 2001) : Not classified

Serious eye damage/eye irritation:

Butyl acetate	Opacity of the cornea recovered on the second day. Redness of the conjunctiva recovered day7and day14. (ECETOC report) : Category 2B

Respiratory sensitization or Skin sensitization:

Butyl acetate	respiratory sensitization : Classification not possible There are no respiratory sensitization data. skin sensitization : Not classified Skin sensitization does not demonstrated. (Ministry of the Environment Risk Assessment Vol.3 (2004))

Germ cell mutagenicity:

Butyl acetate	There was not enough information. (IN VIVO) : Classification not possible. (IN VITRO TEST = NEGATIVE)

Carcinogenicity:

Butyl acetate	Unknown

Reproductive toxicity:

Butyl acetate	There was no significant difference compared with the control group. : Not classified Ministry of the Environment Risk Assessment Vol.3 (2004), ACGIH (2001)

Specific target organ toxicity - Single exposure:

Butyl acetate	Category 1 (Central nervous system) : (man) : (ACGIH, 2001) Category 2 (Lung) : (animal) : Pulmonary edema was seen by animal studies. Category 3 (Respiratory tract irritation) : Irritation of the respiratory.

Specific target organ toxicity - Repeated exposure:

Butyl acetate	There was not enough information. : Classification not possible

Aspiration hazard:

Butyl acetate Unknown

12. ECOLOGICAL INFORMATION

Ecotoxicity

Crustacea:

No information available

Algae:

No information available

Mobility in soil:

No information available

Other adverse effects:

Do not dispose into a general environment due to no data in many items.

13. DISPOSAL CONSIDERATIONS

Residual wastes:

Dispose of contents/container to waste treatment company having the official approval of laws and regulation. Incinerated in appropriate facilities.

Contaminated containers and packaging:

Empty container filled with water and allowed to stand for 2 days (Should not be sealed), then, disconnect the water.

Used container should be punctured and scrapped, so that it is not used for any other purpose.

14. TRANSPORT INFORMATION

International regulations

Land : Transport in accordance with your country and regions regulations.

(RID, ADR, DOT etc.)

Sea : Transport in accordance with IMDG Code.

Air : Transport in accordance with ICAO-TI/ IATA-DGR.

UN number:	1866
Proper shipping name:	Resin solution, flammable (Polyisocyanate solution)
Hazard class:	3 Flammable liquid
Packing group:	Ⅲ
Marine Pollutant:	Not applicable
IMDG class:	3 Flammable liquid

Follow all the regulations in your country. Be sure that the container is tightly sealed, that no leakage is found and that all the necessary indications are specified. Filling, loading and extracting operations should be performed under the supervision of an authorized operator. Nitrogen gas or dry air should be charged into the container for transportation after filling or extracting.

Ship hazardous materials transportation and storage regulations based on the Ship Safety Act: It corresponds to "poison" hazardous materials, if you want to maritime transport, and transport you necessity to take measures in accordance with the law Ship Safety.

15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country should be examined by your own responsibility.

16. OTHER INFORMATION

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When the revision of this SDS is received, please dispose of the old one.

Contact for Description Contents

Please contact to the following our department.

TOSOH

Please contact to our customer services in your region for the product inquiries.

TOSOH CORPORATION

Urethane Division +81-3-5427-6340