According to Specification JIS Z 7252 Effective date 21/11/2011

#### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

Product Name: SHIKOH UV-7640B

Company Name: The Nippon Synthetic Chemical Industry Co., Ltd.

Department in Charge Specialty Polymers Department

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#### 2. HAZARDS IDENTIFICATION

**GHS** Classification

Physical Hazards : -

Human Health Hazards: Serious eye damage/ eye irritation Category 1

Skin sensitization Category 1
Toxic to reproduction Category2

Environmental Hazards: -

Hazards not listed in the above are classified as "Not Applicable" or "Classification Not Possible". Classification is based on data classified by the Japanese GHS Inter-ministerial Committee in 2006 and information from material suppliers in accordance with the Industrial Safety and Health Law.

#### **GHS Label Elements**

Hazard symbols







Signal words : Danger

Hazard statements : Causes serious eye damage

May cause an allergic skin reaction

Suspected of damaging fertility or the unborn child

Precautionary : [Prevention]

statements Wear protective gloves/eye protection/face protection.

Avoid breathing dust/fume/gas/mist/vapours/spray Use only outdoors or in a well-ventilated area

Wash thoroughly after handling.

### NIPPON GOHSEI

### **MATERIAL SAFETY DATA SHEET** [SHIKOH UV-7640B]

: [Response]

IF ON SKIN:

Wash with plenty of soap and water.

If skin irritation or rash occurs, seek medical advice/attention.

Wash contaminated clothing before reuse.

IF IN EYES:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, before rinsing

IF IN DANGER OF EXPOSURE OR EXPOSURE:

Get medical advice/attention.

: [Storage]

Store in a well-ventilated place and locked up. Keep cool.

: [Disposal]

Dispose of contents/container in accordance with local / regional/ national/ international regulation.

Other hazards

: Polymerization may occur by direct sunshine or heat.

in classification

which do not result Polymerization may occur explosively when heated or caught in fire.

Decomposition by heat or combustion emits irritating or toxic gas (COx).

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS No.	Content
Urethane acrylate	Confidential	50~60%
Acrylic esters (mixture)	Confidential	40~50%
Toluene (impurity of low material)	108-88-3	0.1~less than 0.3%

#### 4. FIRST AID MEASURES

#### INHALATION

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

#### **INGESTION**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

#### SKIN CONTACT

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rush occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

#### EYE CONTACT

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.

#### 5. FIRE FIGHTING MEASURES



## MATERIAL SAFETY DATA SHEET [SHIKOH UV-7640B]

#### **EXTINGUISHING MEDIA**

Water spray, fog or mist. Carbon dioxide or dry powder.

#### SPECIFIC HAZARDS

Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO2). Hydrocarbons.

#### PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

#### 6. ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS

Use personal protection recommended in section.8. Isolate area. Remove sources of ignition. Keep unnecessary personnel away.

#### **ENVIRONMENTAL PRECAUTIONS**

Prevent entry into waterways, sewers, basements or confined areas.

#### METHODS FOR CONTAINMENT

Prevent further leakage or spillage if safe to do so. Use sand, perlite or vermiculite as an absorbent for large spills of this material.

#### METHODS OF CLEAN-UP

Sweep up or gather material and place in appropriate container for disposal.

#### 7. HANDLING AND STORAGE

#### HANDLING:

Never handle the container roughly, such as tumbling dropping, impacting, or dragging.

Because skin rash may occur, use protective gloves during handling to prevent skin contact.

Recommend to wash hands, face and mouth after working.

Wash hands immediately after you handling the product.

No open flames, no sparks, and no smoking.

#### STORAGE:

No fire. Avoid direct sunlight and heat sources. Prevent leakage and scattering.

Keep away from strong oxidants, strong acids, and strong alkaline substances.



According to Specification JIS Z 7252

#### **TECHNICAL MEASURES:**

Keep the oxygen concentration to prevent polymerization and do not substitute for inactive gas. container tightly closed in a dry and well-ventilated, fireproof place. Keep away from heat, sparks and open flame.

PROPER STORAGE CONDITIONS:

Well-closed container

Store in a well-ventilated, cool, and dark place.

SAFE MATERIALS FOR PACKAGES AND CONTAINER

Well-closed container

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### TECHNICAL FACILITY MEASURES

Handle in a property ventilated place. It is desirable to install local ventilation equipment, if possible. Install an emergency shower and face-washing facility near the handling site.

Toluene 20ppm (TWA) (ACGIH:2005)

PROTECTIVE EQUIPMENT

Hand protection : Wear suitable protective gloves if risk of skin contact.

Eye protection : Wear approved safety goggles.

Skin and body protection : Wear protective clothes.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Viscous liquid, Slightly yellow

Odour Characteristic Chemical.

pH data not available
Melting point / Freezing point data not available
Initial boiling point / boiling range data not available

Flash point (Acrylic esters) include 113, >110 degrees Celsius

(Toluene) 4 degrees Celsius (closed cup)

Evaporation rate data not available
Upper/lower flammability or data not available
Explosive limits data not available
Vapour pressure data not available
Vapour density data not available

Relative density Mixture: Specific gravity 1.0-1.2g/cm<sup>3</sup>

Solubility Soluble in ethyl acetate and toluene,

but insoluble in water.

Partition coefficient: n-octanol / water
Auto-ignition temperature

data not available
data not available
data not available

# NIPPON GOHSEI MATERIAL SAFETY DATA SHEET [SHIKOH UV-7640B]

#### 10. STABILITY AND REACTIVITY

**STABILITY** 

Stable under the prescribed storage conditions.

CONDITIONS TO AVOID

Sunlight, Heat, UV-rays

MATERIALS TO AVOID

Acids, Bases, Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide (CO). Carbon dioxide (CO2). Hydrocarbons.

#### 11. TOXICOLOGICAL INFORMATION

#### SERIOUS EYE DAMAGE / IRRITATION

(one of Acrylic ester)

The thing with severe irritation, causticity, corneal opacity or a severe irritating report, EU classification include a thing of R36 (Irritating to eyes) in the study using the rabbit

(Toluene)

Because seven days recover from the description of the eye irritation test results in conformity with the OECD test guidelines using the rabbit, we are thought to show mild eye irritation

#### RESPIRATORY OR SKIN SENSITIZATION

(one of Acrylic ester)

We put maximization test using the marmot, multiple studies of Draize test and show sensitizing potential, and we are positive, and the positive result of the patch test is reported in the thing with several reports indicating the positive, the case with suspected study and acrylic allergy by the volunteer by the patch test of a worker treating the material concerned in the sensitizing potential study by the human volunteer a lot, and even a skin sensitization test (maximization test) using the marmot includes results several reported things of positive rate more than 50%.

#### REPRODUCTIVE TOXICITY

(one of Acrylic ester)

Mild toxicity to mother was found in the developmental toxicology study with the rat percutaneous administration, but does not have the teratogenic findings to fetuses.

Whereas, in a developmental toxicology study administered orally for rat organogenesis, we include the thing which mortality, effect on fetal mortality are found in after implantation

(Toluene) Increase of the spontaneous abortion by the toluene exposure, cacogenesis, malformation of neonates by the toluene abuse of the pregnant woman, plasma lutotropin by the toluene exposure, decrease of the testosterone level are suggested in human epidemiologic studies.

By the animal experiment, earlier instar and time of testes descent is found in the dose that the general toxicity is not found in a mother animal in a rat and murine teratogenicity test on the increase of death fetuses, the ossification delay, decrease, non-ossification of the sternebra, costal



malformation (shift in rib profile), supernumerary rib, a skeletal development delay, the delay of the reflection response, learning disorders, a vagina opening day.

In addition, according to Da-Silva et al., the effect on developmental toxicology through the nursing was not found, but accumulation to milk of toluene is found. (Category 1A).

#### 12. ECOLOGICAL INFORMATION

#### ACUTE AOUATIC TOXICITY

(Toluene) It is noted that lower effect concentrations were observed with a marine species, the bay shrimp Crangon franciscorum (96hrs EC50 = 3.5 mg/l) and with the freshwater species Ceriodaphnia dubia (48hrs EC50 = 3.8 mg/l). (European Union Risk Assessment Report(2003))

#### **BIOACCUMULATION POTENTIAL**

(Toluene)log Kow=2.73 (PHYSPROP Database, 2005))

#### 13. DISPOSAL CONSIDERATIONS

#### GENERAL INFORMATION

Dispose of contents/container in accordance with all applicable regulations.

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. Waste is suitable for incineration.

#### 14. TRANSPORT INFORMATION

U.N. Classification: Not applicable to the hazardous substances according to the UN definition.

U.N. Number: Not applicable

Emergency measures guideline number: 128

Specific transportation safety measures and conditions:

Confirm that there is no leakage on packaging and load the material by enforcing the prevention measure against load collapse, so as not to cause

inversion, fall, and damage.

GENERAL The product is not covered by international regulation on the transport

of dangerous goods (IMDG, IATA, ADR/RID).

No transport warning sign required.

#### 15. REGULATORY INFORMATION

This safety datasheet complies with specification JIS Z 7252.

Follow all relevant regulations in your country.

#### **16.OTHER INFORMATION**

MSDS Status: 21/11/2011 (ver.1.1)

This information given here is based on our knowledge and information at the date of its publication,

# NIPPON GOHSEI MATERIAL SAFETY DATA SHEET [SHIKOH UV-7640B]

but it is not to guarantee accuracy of information and safety. For further information, please consult The Nippon Synthetic Chemical Industry Co., Ltd.