NIPPON GOHSEI

MATERIAL SAFETY DATA SHEET
[SHIKOH UV-7605B]

According to Specification JIS Z 7252
Effective date 30/03/11

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

Product Name: SHIKOH UV-7605B

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 :	Skin corrosion/irritation	Category 2
	Serious eye damage/ eye irritation	Category 1
	Skin sensitization	Category 1
	Toxic to reproduction	Category 2

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 skin irritation
Causes serious eye damage
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child

Precautionary statements : [Prevention]
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.

: [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 which do not result in classification : Polymerization may occur by direct sunshine or heat.
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	45~55%
Acrylic esters (mixture)	Confidential	45~55%
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

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.

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/cm3
Solubility	Solvent solubility:Soluble in ethyl acetate and toluene, but insoluble in water .
Partition coefficient : n-octanol / water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available

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

ACUTE TOXICITY (ORAL)
(one of Acrylic ester) Acute oral LD50 values reported for rats were 2.46 mL this chemical /kg body weight, 1,350 mg/kg, or greater than 500 to 5,000 mg/kg. (NTP GMM No.4 (2005))

SKIN CORROSION / IRRITATION
(one of Acrylic ester)
TYPE OF TEST : Standard Draize test
ROUTE OF EXPOSURE : Administration onto the skin
SPECIES OBSERVED : Rodent - rabbit
DOSE/DURATION : 500 mg
REACTION SEVERITY : Moderate
REFERENCE :JTEHD6 Journal of Toxicology and Environmental Health. V.1- 1975/76-Volume (issue)/page/year: 19,149,1986

SERIOUS EYE DAMAGE / IRRITATION
(one of Acrylic ester)
Applications of this chemical to the eye of rabbits caused severe and corrosive irritation as well as corneal opacity (Carpenter et al., 1974; Andrews and Clary, 1986), and 1 mg of this chemical applied to the eye of rabbits resulted in severe irritation (Lenga, 1988; Sax and Lewis, 1989).

RESPIRATORY OR SKIN SENSITIZATION
(one of Acrylic ester)
this chemical was not detected as a sensitizer in repeated insult patch testing or in guinea pigs using the Buehler method. However, this chemical was positive in a guinea pig maximization test (Andrews and Clary 1986).(NTP GMM No.4(2005))

REPRODUCTIVE TOXICITY
(one of Acrylic ester)
teratogenic effects were not noted in a second study in which this chemical was administered at an unspecified dose that caused minimal maternal toxicity. From these results, the authors concluded that this chemical was not a teratogen. (NTP GMM No.4 (2005))
the influence on postimplantation loss rate and the mortality rate of the embryo are admitted in the reproduction test that oral study in rats of the organogenesis stage.(RTECS (2003))
(Toluene) This study suggests an increased risk of late spontaneous abortions associated with

exposure to toluene at levels around 88 ppm (range 50-150 ppm)(European Union Risk Assessment Report(2003))

12. ECOLOGICAL INFORMATION

ACUTE AQUATIC 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
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: 03/28/2011 (ver.1.1)

This information given here is based on our knowledge and information at the date of its publication, but it is not to guarantee accuracy of information and safety.

For further information, please consult The Nippon Synthetic Chemical Industry Co., Ltd.