

Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: STANDARD SAMPLE for LC/MS (Parts No.225-06613-01,-14)

General Use: For Research Use Only

Manufacturer's Name: SHINWA CHEMICAL INDUSTRIES, LTD.

Address: 50-2 Kagekatsu-cho, Fushimi-ku, Kyoto 612-8307 Japan

Emergency Phone: 81(75)621-2360

Emergency Fax: 81(75)602-2660

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS CLASSIFICATION : according to Regulation (EC)No 1272/2008

Flammable liquids: Category 2

Serious eye damage/eye irritation: Category 2A

Acute toxicity-Oral: Category 4

Acute toxicity-Dermal: Category 4

Acute toxicity-Inhalation: Category 4

HAZARD SYMBOL :



DANGER

HAZARD STATEMENTS :

H225 Highly flammable liquid and vapour

H319 Causes serious eye irritation

H302 Harmful if swallowed

H312 Harmful in contact with skin

H332 Harmful if inhaled

PRECAUTIONARY STATEMENTS :

P210 Keep away from ignition sources such as heat/sparks/open flame.

-No smoking.

P280 Wear protective gloves/protective clothing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

EU CLASSIFICATION: according to 67/548/EEC

SYMBOL : F, Xn

R-phrase :

R11 Highly flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36 Irritating to eyes.

S-phrase(s)

S16 Keep away from sources of ignition - No smoking.

S36/37 Wear suitable protective clothing and gloves.

3. COMPOSITION / INFORMATION ON INGREDIENTS

| Component | Formula | CAS No. | Content |
|--------------|------------|---------|---------|
| Reserpine | C33H40N2O9 | 50-55-5 | 1µg/mL |
| Acetonitrile | CH3CN | 75-05-8 | 99.9% |

4. FIRST AID MEASURES

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA :

Carbon dioxide, dry chemical powder, foam, water

FIRE & EXPLOSION HAZARDS :

Flammable liquid. Hazardous toxic and irritating fumes or smoke may be emitted. Vapors may travel considerable distance to ignition source and flash back.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS :

Firemen should wear normal protective equipment(full bunker gear)and positive-pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS :

Remove ignition sources and ventilate the area. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS :

Prevent spills from entering sewers, watercourses or low areas.

METHODS FOR CLEANING UP :

Do not touch spilled material without suitable protection(See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

PRECAUTION FOR SAFE HANDLING :

Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Handle material with suitable protection away from source of heat or ignition and use non-sparking type tools. Use explosion-proof electrical equipments and lighting.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in well-ventilated dry place at room temperature (preferably cool place). Keep container tightly closed.

INCOMPATIBILITIES :

Acids, alkalis, reducing agents, alkali metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES :

Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

VENTILATION :

Local Exhaust ; Necessary, Mechanical(General) ; Necessary
Special; Closed system is recommended.

INDIVIDUAL PROTECTION MEASURES ;

Respiratory protection :
NIOSH/MSHA or European Standard EN149 approved respirator
Hand protection : Impervious gloves
Eye protection : Safety glasses(goggles)
Skin protection : Protective clothing

CONTROL PARAMETER :

OSHA Final Limits : TWA= 40ppm, 70mg/m³
ACGIH TLV(s) : TWA= 40ppm,67mg/m³; STEL= 60ppm,101mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Liquid
Color: Colorless

(As Acetonitrile)

APPEARANCE :

ODOUR :

pH :

Not available

MELTING POINT :

-45 °C= -49 °F

INITIAL BOILING POINT :

82 °C= 178 °F

FLASH POINT :

9.5 °C= 49 °F(TCC)

FLAMMABILITY (solid, gas) :

EXPLOSIVE LIMITS :

Lower; 4.4%, Upper; 16%

VAPOR PRESSURE :

9.7kPa (at 20 °C= 68 °F)

RELATIVE DENSITY :

0.780 - 0.784g/ml (at 20 °C= 68 °F)

SOLUBILITY IN ;

WATER : Miscible

ALCOHOL : Miscible

PARTITION COEFFICIENT :

log Po/w: -0.34

AUTOIGNITION TEMPERATURE :

524 °C= 975 °F

DECOMPOSITION TEMPERATURE : Not available

10. STABILITY AND REACTIVITY STABILITY

STABILITY :

Stable : Stable.

Material to avoid : Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS :

Hazardous Decomposition Products : Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION :
Hazardous Polymerization : Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY(oral/dermal/inhalation) : Not available as the mixture
(As Acetonitrile)LD50(oral,rat): 2460mg/kg (UCDS**, 1965)
LD50(oral,mouse): 269mg/kg (ARTODN,1984)
LD50(oral,rat): 2080mg/kg (Calculated,EHC 154,1993)
LD50(skin,rabbit): 390 mg/kg (Calculated, EHC 154,1993)
LC50(ihl,rat): 17100ppm/4H (HALRE*,1968)
LC50(ihl,mouse): 2963ppm/1H (CTOXAO,1981)
LC50(ihl,rabbit): 2828ppm/4H (JOCMA7, 1959)

SKIN CORROSION/IRRITATION : Not available as the mixture
(As Acetonitrile)Skin; rabbit; 500mg; Mild (RTECS)

EYE DAMAGE/EYE IRRITATION : Not available as the mixture
(As Acetonitrile)Eye; rabbit; 100µL/24H; Moderate (RTECS)

RESPIRATORY OR SKIN SENSITIZATION : Not available as the mixture

GERM CELL MUTAGENICITY : Not available as the mixture
(As Acetonitrile)Sister chromatid exchange; hamster; ovary; 5gm/L (RTECS)
Sex chromosome loss and nondisjunction; S. cerevisiae;
47600ppm (RTECS)
Reverse mutation assay in S.typhimuriun and E.coli;
Positive(in vivo)

TOXIC TO REPRODUCTION : Not available as the mixture
(As Acetonitrile)TDLo(ihl,rat): 1800ppm(6-20D preg) (RTECS)
TDLo(oral,rabbit): 390mg/kg(6-18D preg) (RTECS)

STOST-SINGLE EXPOSURE : Not available as the mixture
(As Acetonitrile)Target organ: central nervous system, respiratory organ Human;
breast ache, breast stricture, nausea, vomitory, pulsus frequens,
low blood pressure, headache, insomnia. clouding of consciusnes,
(CERI 99-19, 1997)

STOST-REPEATED EXPOSURE : Not available as the mixture
(As Acetonitrile)Target organ: central nervous system, respiratory organ, kidney,
blood system, liver Animal; chronic pneumonia, emphysema,
pleural effusion, bronchitis, subdural hemorrhage(EU-RAR
No.18,2002)
Human; Decrease of haematocrit value, haemoglobin value and
red blood corpuscle, bronchitis(Hazard report, japanese
department of environment vol 2, 2003)

ASPIRATION TOXICITY : Not available as the mixture

CARCINOGENICITY : Not available as the mixture
(As Acetonitrile)TDLo(ihl,rat): 400ppm/6H/2Y-I (RTECS)

ADDITIONAL INFORMATION ; Not available as the mixture
NTP : Not listed
IARC : Not listed
OSHA : Not listed
(As Acetonitrile)
ACGIH : Not Classifiable as a Human Carcinogen (A4)

12. ECOLOGICAL INFORMATION

Not available as the mixture
(Acetonitrile)
ECOTOXICITY : LC50(killifish): >100mg/L/96hr

PERSISTENCE AND DEGRADABILITY : This materials is biodegradable.
BIOACCUMULATION POTENTIAL : Not available
MOBILITY IN SOIL : Not available
OTHER ADVERSE EFFECTS : WGK; 2

(Reserpine)
No data available.

13. DISPOSAL CONSIDERATION

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE PREPARARION

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

IATA

Proper Shipping Name: Acetonitrile
IATA UN Number: 1648
Class or Division: Flammable liquid (Class 3)
Packing Group: II

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture:
no data available
Chemical Safety Assessment;
no data available

16. OTHER INFORMATION

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

The above information is believed to be correct to be the best of our knowledge and information but does not purport to be all inclusive and shall be used only as a guide. This product is intended to be used by expert persons having chemical knowledge and skill, at their own discretion and risk and Shinwa shall not be held liable for any damage resulting from handling or from contact with the above material.