Safety Data Sheet

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Commercial Name: STANDARD SAMPLE for LC/MS
(Parts No. 225-14122-01,-02,-03,-04. Parts No. 225-12238-01,-02)
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-(0)75-621-2360
Emergency Fax: +81-(0)75-602-2660

---

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION :
according to Regulation (EC)No 1272/2008
Acute toxicity-Oral: Category 3
Acute toxicity-Dermal: Category 3
Acute toxicity-Inhalation: Category 3
Specific target organ systemic toxicity Single exposure: Category 1
HAZARD SYMBOL :

DANGER

HAZARD STATEMENTS :
H331 Toxic if inhaled
H311 Toxic in contact with skin
H301 Toxic if swallowed
H370 Causes damage to organs
PRECAUTIONARY STATEMENTS :
P260 DO not breathe dust/fume/mist/vapours/spary.
P280 Wear protective gloves/protective clothing.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P311 Call a POISON CENTER or doctor/physician.

EU CLASSIFICATION: according to Directive 67/548/ECC.
SYMBOL : T
R-phrase : R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
S-phrases: S7 Keep container tightly closed.
S36/37 Wear suitable protective clothing and gloves.
S45 In case of accident or if you feel unwell, seek medical advice immediately.

---

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	Formula	CAS No.	Content
Polyethylene Glycol 200	H(OCH2CH2)nOH	25322-68-3	1.5µL/L
Polyethylene Glycol 600	H(OCH2CH2)nOH	25322-68-3	0.1µL/L
Polyethylene Glycol 1000	H(OCH2CH2)nOH	25322-68-3	15µL/L
Polypropylene Glycol 2000	HO[-CH2CH(CH3)O-]nH	25322-69-4	10µL/L
Raffinose	C18H32O16·5H2O	17629-30-0	50mg/L
Ammonium Acetate	CH3COONH4	631-61-8	14.5mg/L

Methanol	CH3OH	67-56-1	200mL/L
Water	H2O	7732-18-5	800mL/L

4. FIRST AID MEASURES

GENERAL ADVICE :

Wash off immediately with soap and plenty of water. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit. Use personal protective equipment.

INHALATION :

Move victim to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Maintain normal body temperature with a blanket. If irritation persists, transport to a hospital immediately.

SKIN CONTACT :

Remove contaminated clothes and shoes, rinse skin with plenty of water or shower.
Use soap to help assure removal. If irritation persists, transport to a hospital immediately.

EYE CONTACT :

Remove any contact lenses at once. Flush eyes well with a large amount of running water for at least 15 minutes. Assure adequate flushing by separating the eyelids with sterile fingers. If irritation persists, transport to a hospital immediately.

INGESTION :

Rinse mouth, give plenty of water to dilute the substance. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :

Carbon dioxide, dry chemical powder, alcohol resistant 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. This material is highly volatile.

CONDITIONS FOR SAFE STORAGE :

Store away from sunlight in well-ventilated dry place at room temperature (preferably cool

place). Keep container tightly closed.

INCOMPATIBILITIES :

Oxidizers, acid, acid chlorides, acid anhydrides, 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 :

<As Methanol>

OSHA Final Limits : TWA= 200ppm, 260mg/m3

ACGIH TLV(s) : TWA= 200ppm, 262mg/m3; STEL=250ppm, 328mg/m3; skin notation

---

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :	Colourless clear liquid
ODOUR :	Characteristic odour
pH :	Not available
FLASH POINT :	47°C
<As Methanol >	
MELTING POINT :	-98 °C= -144 °F
INITIAL BOILING POINT :	65 °C= 149 °F
FLAMMABILITY (solid, gas) :	.....
EXPLOSIVE LIMITS :	Lower; 6%, Upper; 36.5%
VAPOR PRESSURE :	12.3kPa (20 °C= 68 °F)
VAPOR DENSITY :	1.1
SPECIFIC GRAVITY :	0.79
SOLUBILITY IN ;	
WATER :	Miscible
ACETONE :	Miscible
PARTITION COEFFICIENT :	-0.82/-0.66
AUTOIGNITION TEMPERATURE :	464 °C= 867 °F
DECOMPOSITION TEMPERATURE :	Not available

---

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY : Will not occur.

CONDITIONS TO AVOID : Sunlight, heat, open flames, high temperature, sparks, static electrical charge, other ignition sources

INCOMPATIBILE MATERIALS : Oxidizers, acid, acid chlorides, acid anhydrides, reducing agents, alkali metals

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide may be formed.

---

11. TOXICOLOGICAL INFORMATION

<As Methanol >

ACUTE TOXICITY(oral/dermal/inhalation) : LD50(orl,rat): 5628mg/kg(GTPZAB 19(11),27,1975)
LC50(ihl,rat): 64000ppm/4H(NPIRI* 1,74,1974)
TDLo(orl,man): 9450μL/kg(AJEMEN 16,538,1998)

TCLo(ihl,human): 300ppm(NPIRI* 1,74,1974)

SKIN CORROSION/IRRITATION : Skin; rabbit; 20mg/24H; Moderate(85JCAE -,187,1986)

EYE DAMAGE/EYE IRRITATION : Eye; rabbit; 100mg/24H; Moderate(85JCAE -,187,1986)

RESPIRATORY OR SKIN SENSITIZATION : Allergic dermatitis; human, skin(PATTY 4th,1994)
No skin sensitization ;Magnusson-Kligman maximization test, guinea pig
(EHC 196,1997: DFGOT vol. 16,2001)

GERM CELL MUTAGENICITY :
Mutation in microorganisms; mouse; lymphocyte; 7900mg/L(ENMUDM 7(Suppl 3),10,1985)

TOXIC TO REPRODUCTION : TCLo(ihl,rat): 10000ppm/7H(7-15 D preg)(FAATDF 5,727,1985)
TDLo(orl,rat): 5200μL/kg(10 D preg)(REPTED 11,503,1997)

STOST-SINGLE EXPOSURE :
The restraint of central nervous system and damage of the visual organ, human, oral or ihl(EHC 196,1997; ACGIH, 7th,2001; DFGOT vol.16, 2001),
The respiratory tract irritation, rat,(EHC 196,1997; PATTY 4th,1994),
Anesthesia, rat , mouse and rhesus monkey(EHC 196,1997;PATTY 4th,1994)

STOST-REPEATED EXPOSURE :
The restraint of central nervous system and damage of the visual organ, human, oral or ihl(EHC 196,1997; ACGIH, 7th,2001; DFGOT vol.16, 2001)

ASPIRATION TOXICITY : Not available

CARCINOGENICITY : Not available

ADDITIONAL INFORMATION ;
NTP : Not listed
IARC : Not listed
OSHA : Not listed
ACGIH : Not listed
EPA GENETOX PROGRAM 1988, Negative: SHE-clonal assay; Cell transform.-SA7/SHE

---

12. ECOLOGICAL INFORMATION

ECOTOXICITY : Not listed

PERSISTENCE AND DEGRADABILITY : This material is biodegradable.

BIOACCUMULATION POTENTIAL : Not available

MOBILITY IN SOIL : Not available

OTHER ADVERSE EFFECTS : WGK; 1

---

13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER)

Burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules).

---

14. TRANSPORT INFORMATION

IATA

Proper Shipping Name: Flammable liquid,Toxic n.o.s. (Methanol 20% solution)
IATA UN Number: 1992
CLASS or DIVISION :Flammable liquid.(Class 3) + Toxic substances.(Division 6.1)
Packing Group: Ⅲ

---

15. REGULATORY INFORMATION

<As Methanol >

US REGULATIONS ;
TSCA CHIPs,, CAA/111 Volat. Org. Comp., CAA/112 1990 Amend., NIOSH Recommend. Subst., RCRA Haz., CERCLA Haz. Subst., SARA III/313 Tox. Chem., DOT Haz. Mat., DOT Haz. Sub. and Rep. Quant., Mass. Subst. List , New Jers. RTK Haz. Subst. List , Penn. Haz. Subst. List ,

Canad. WHMIS IDL 1% conc.

EPA : CERCLA RQ= 5000lb
EPCRA TPQ= Not listed
EPCRA SECTION 313 de minimis concentration is 1.0%.
EPA FIFRA 1998 STATUS OF PESTICIDES: Cancelled
OSHA: TQ= Not listed
NFPA: HR= health-1, flam.-3, react.-0

---

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.