

SAFETY DATA SHEET

[1.PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : REFINED GLYCERIN
SUPPLIER : Kao Corporation
ADDRESS : 1-3,Bunka 2-chome,Sumida-ku,Tokyo 131-8501 Japan
DIVISION : Global Chemical Business
TELEPHONE NUMBER : 81-3-5630-7700
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EMERGENCY TELEPHONE NUMBER : 81-3-5630-7700
RECOMMENDED USE AND RESTRICTIONS ON USE :

[2.HAZARDS IDENTIFICATION]

GHS CLASSIFICATION

PHYSICAL AND CHEMICAL HAZARDS : Not classified

HEALTH HAZARDS

ACUTE HAZARD (Oral) : Not classified
ACUTE HAZARD (Dermal) : Not classified
ACUTE HAZARD (Inhalation) : Not applicable(Vapours)
SKIN CORROSION / IRRITATION : Not classified
SERIOUS EYE DAMAGE / EYE IRRITATION : Not classified
RESPIRATORY SENSITIZATION : Classification not possible
SKIN SENSITIZATION : Not classified
GERM CELL MUTAGENICITY : Not classified
CARCINOGENICITY : Not classified
REPRODUCTIVE TOXICITY : Not classified
SPECIFIC TARGET ORGAN TOXICITY
 - SINGLE EXPOSURE : Classification not possible
 - REPEATED EXPOSURE : Not classified
ASPIRATION HAZARD : Classification not possible

ENVIRONMENTAL HAZARDS

HAZARDOUS TO THE AQUATIC ENVIRONMENT

- ACUTE HAZARD : Not classified
 - LONG-TERM HAZARD : Not classified
 - HAZARDOUS TO THE OZONE LAYER : Classification not possible

GHS LABEL ELEMENTS

PICTOGRAMS OR SYMBOLS : Not applicable
SIGNAL WORD : Not applicable
HAZARD STATEMENTS : Not applicable

PRECAUTIONARY STATEMENTS

PREVENTION : Wash thoroughly after handling.
 If needed, use personal protective equipment as required.
RESPONSE : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 IF ON SKIN: Gently wash with plenty of water and soap.
 Call a POISON CENTER or doctor if you feel unwell.
STORAGE : Store in well-ventilated place.
DISPOSAL :

SAFE HANDLING ADVICE : Refer to SDS.

[3.COMPOSITION / INFORMATION ON INGREDIENTS]

SUBSTANCE OR MIXTURE : Substance
INGREDIENTS AND CONCENTRATION : Glycerin
RANGE
CAS RN : 56-81-5

[4.FIRST-AID MEASURES]

IN CASE OF INHALATION : Remove person to fresh air and keep comfortable for breathing.
IN CASE OF SKIN CONTACT : Gently wash with plenty of soap and water.
IN CASE OF EYE CONTACT : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IN CASE OF INGESTION : Call a POISON CENTER or doctor if you feel unwell.

[5.FIRE-FIGHTING MEASURES]

EXTINGUISHING MEDIA : Powder, alcohol-resistant foam, water spray, carbon dioxide,sand
NOT SUITABLE EXTINGUISHING MEDIA : No information available
SPECIFIC HAZARDS : No information available
SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing media.Fight fire from upwind position if possible.
PROTECTION OF FIRE FIGHTERS : Use goggles in combination with dust mask, and other protections as appropriate to situation.

[6.ACCIDENTAL RELEASE MEASURES]

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE : Use goggles and protective gloves.
Large spills : Remove person to safety.
Ensure adequate ventilation.
ENVIRONMENTAL PRECAUTIONS : Do not discharge into the drains, surface waters or ground water directly.
METHODS FOR CLEANING UP : Small spills: Absorb spills with sand, inert absorbent, waste cloth or sawdust. Then wipe up remainder in waste cloth.
Large spills: Dike spills and dispose of in safe area.
PREVENTION OF SECONDARY HAZARDS : Keep away from sources of ignition and prepare extinguishing media.

[7.HANDLING AND STORAGE]

HANDLING
TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
PRECAUTIONS : Keep away from source of ignition.
SAFE HANDLING ADVICE : Use an adequate ventilation.
Wash thoroughly after handling.
If needed, use personal protective equipment as required.
STORAGE
SUITABLE STORAGE CONDITIONS : Store container tightly closed in well-ventilated place.
Keep away from source of ignition.
SAFE PACKAGING MATERIALS : No information available

[8.EXPOSURE CONTROLS / PERSONAL PROTECTION]

ENGINEERING MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Use an adequate ventilation.

LIMIT VALUES

ACGIH (TLV)	:	10 mg/m ³ TWA Glycerin mist
OSHA (PEL)	:	15 mg/m ³ TWA (total); 5 mg/m ³ TWA (respirable fraction) Glycerin mist

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION	:	Use as appropriate to situation.
HAND PROTECTION	:	Rubber gloves
EYE PROTECTION	:	Safety glasses
SKIN AND BODY PROTECTION	:	Full-body suit
HYGIENE MEASURES	:	No information available

[9.PHYSICAL AND CHEMICAL PROPERTIES]

APPEARANCE

PHYSICAL STATE	:	Viscous liquid
COLOUR	:	Colorless clear
ODOUR	:	Almost odourless
pH	:	5.5 - 6.5 (33% solution)

SPECIFIC TEMPERATURES / TEMPERATURE RANGES
AT WHICH CHANGES IN PHYSICAL STATE OCCUR

BOILING POINT	:	290 °C (554 °F)
MELTING POINT	:	18 °C (64.4 °F)
FLASH POINT	:	160 °C (320 °F) (CLEVELAND open cup method)

FLAMMABILITY OR EXPLOSIVE PROPERTIES

FLAMMABILITY OR EXPLOSIVE LIMITS	:	UPPER LIMIT : No information available LOWER LIMIT : No information available
VAPOUR PRESSURE	:	1300 Pa (167.2 °C) (333 °F)
VAPOUR DENSITY	:	3.2
DENSITY (SPECIFIC GRAVITY)	:	1.263 g/mL (15 °C) (59 °F) 1.2594 g/mL (25 °C) (77 °F) 1.242 g/mL (50 °C) (122 °F)

SOLUBILITY

WATER SOLUBILITY	:	Soluble
SOLVENT SOLUBILITY	:	Soluble in lower alcohol. Insoluble in ether and chloroform.

PARTITION COEFFICIENT: n-
OCTANOL / WATER (log Pow) : No information available

AUTO-IGNITION TEMPERATURE	:	386 °C (726.8 °F)
DECOMPOSITION TEMPERATURE	:	No information available
ODOUR THRESHOLD	:	No information available
EVAPORATION RATE	:	No information available
FLAMMABILITY (SOLID,GAS)	:	No information available
VISCOSITY	:	276.1 mPa.s (40 °C) (104 °F) 145.9 mPa.s (50 °C) (122 °F) 32.2 mPa.s (80 °C) (176 °F)

OTHER DATA : No information available

[10.STABILITY AND REACTIVITY]

CHEMICAL STABILITY	:	Stable in general.
POSSIBILITY OF HAZARDOUS REACTIONS	:	Stable in general.

CONDITIONS TO AVOID	: No information available
INCOMPATIBLE MATERIALS	: No information available
HAZARDOUS DECOMPOSITION PRODUCTS	: No special hazardous and harmful combustion or decomposition products.
OTHERS	: No information available

[11.TOXICOLOGICAL INFORMATION]

ACUTE HAZARD

Oral

INFORMATION ON PRODUCT : Rat, LD50 : 12600 mg/kg (Data on Glycerin)(2)
Human, TDLo : 1428 mg/kg (Data on Glycerin)(2)

Dermal

INFORMATION ON PRODUCT : Rabbit, LD50 : > 10 g/kg (Data on Glycerin)(2)

Inhalation

INFORMATION ON PRODUCT : No information available

SKIN CORROSION / IRRITATION

INFORMATION ON PRODUCT : Rabbit, 500mg/24h : Mild (Data on Glycerin)(2)

SERIOUS EYE DAMAGE / IRRITATION

INFORMATION ON PRODUCT : Rabbit, 126mg : Mild (Data on Glycerin)(2)

RESPIRATORY OR SKIN SENSITIZATION

RESPIRATORY

INFORMATION ON PRODUCT : No information available

SKIN

INFORMATION ON PRODUCT : No information available

MUTAGENICITY (GERM CELL MUTAGENICITY)

INFORMATION ON PRODUCT : Ames test (TA98, TA100) : Negative (Data on similar product)

CARCINOGENICITY

INFORMATION ON PRODUCT : No information available

IARC : Not listed

NTP : Not listed

EU : Not listed

OSHA : Not listed

REPRODUCTIVE TOXICITY

INFORMATION ON PRODUCT : No information available

SPECIFIC TARGET ORGAN TOXICITY

- SINGLE EXPOSURE

INFORMATION ON PRODUCT : No information available

- REPEATED EXPOSURE

INFORMATION ON PRODUCT : No information available

ASPIRATION HAZARD

INFORMATION ON PRODUCT : No information available

OTHER INFORMATION

: No information available

[12.ECOLOGICAL INFORMATION]

ECOTOXICITY : Carp, LC50 : > 1000 mg/L (48h) (Data on Glycerin)(24)
Daphnia magna, EC50 : > 1000 mg/L (3h) (Data on Glycerin)(24)

ACUTE HAZARD : No information available

LONG-TERM HAZARD : No information available

PERSISTENCE / DEGRADABILITY : Modified MITI test (I) (OECD301C) :
% degradation by BOD= 63% (14 days) (Data on Glycerin)(4)

MOBILITY IN SOIL : No information available
 BIOACCUMULATIVE POTENTIAL : No information available
 OTHER ADVERSE EFFECTS : BOD5 : 0.58 g/g (JIS K0102)
 COD(Cr) : 1.1 g/g (JIS K0102)

[13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)".
 Passed to a licensed waste contractor.

Dispose of waste in accordance with local,state and federal regulations.

[14.TRANSPORT INFORMATION]

Follow all regulations in your country or region

INTERNATIONAL REGULATIONS

UN CLASS / UN NUMBER : Not applicable
 SPECIAL PRECAUTIONS FOR USER : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".
 Review "HANDLING AND STORAGE (Section 7)".
 Ensure containers without breakage or leakage.
 Ensure containers tightly fixed.
 Follow all regulations in your country or region.
 Keep away from source of ignition.

[15.REGULATORY INFORMATION]

Follow all regulations in your country or region.

INVENTORIES	:	ENCS(Japan)	2-242
		TSCA(USA)	Yes
		EINECS(EU)	200-289-5
		AICS(Australia)	Yes
		DSL(Canada)	Yes
		ECL(Korea)	KE-29297
		PICCS(Philippines)	Yes
		IECSC(China)	Yes

KAO Corporation is not able to check up the regulatory information in regard to the substances in your country or region,therefore,we request this matter would be filled by your responsibility.

[16.OTHER INFORMATION]

REFERENCE : -Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1)
 -International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)
 (2)Registry of Toxic Effects of Chemical Substances
 (4)Biodegradation and Bioconcentration of the Existing Chemical Substances under the Chemical Substances Control Law
 (24)Ecological Chemistry

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