

Safety Data Sheet (SDS)

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1. Product and Company Identification

- a) Product Name : SUPEXOLV TPM
- b) Recommended use and Restriction on use
 - o Recommended use : Solvent
 - o Restriction on use : No Data
- c) Manufacturer/Supplier/Distributor Information
 - o Name : SKC Co., Ltd
 - o Address : 255, Yongjamro(kosadong) Namgu, Ulsan City, Republic of Korea
 - o Emergency phone number : 82-52-278-5511~5

2. Hazard identification

- a) Hazard-Risk Classification :
 - o Specific target organ systemic toxicity – single exposure
- b) Label elements including precautionary statements

- o Symbol :



- o Signal Word : Warning
- o Hazard-Risk statements
 - H336 May cause drowsiness or dizziness.
- o precautionary statements
 - Prevention
 - ; P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 - ; P271 Use only outdoors or in a well-ventilated area.
 - Response
 - ; P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 - Storage
 - ; P403+P233 Tightly seal the container in a well ventilated place and store it.
 - ; P405 Store locked up.
- c) Other Hazard Identification (NFPA)
 - o Hazards Not Otherwise Classified (HNOC)
 - o May cause dermatitis by defatting the skin from prolonged or repeated contact.

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3. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>Other Name</u>	<u>CAS number</u>	<u>Content(%)</u>
Tripropylene Glycol Mono Methyl Ether	Propanol,(2-(2-methoxy methyl ethoxy)-methyl ethoxy)-propanol	25498-49-1	Over 95.0
WATER	-	-	Under 0.15
Acetic acid	-	-	Under 0.01
Dipropylene glycol mono methyl ether, others	DPM	34590-94-8	Under 4.84

4. First aid measures

- a) Eye contact
 - o Irrigate eyes with a heavy stream of water for over 15 minutes if chemical comes in to contact with the eyes.
- b) Skin contact
 - o Irrigate with lots of soapy water for over 15 minutes.
 - o Take off and remove clothing or shoes contaminated with the chemical.
 - o Sufficiently wash polluted clothing before reuse.
 - o Immediately consult a doctor if the chemical comes in to contact with the skin.
- c) Inhalation
 - o If overcome by exposure, remove victim to fresh air immediately.
 - o Give oxygen or artificial respiration as needed.
- d) Ingestion
 - o If a large amount of chemicals is ingested immediately consult a doctor.
- e) Other Caution from Doctors: no data.

5. Fire-Fighting measures

- a) A. Suitable (Unsuitable) Fire Extinguishing Agent
 - o Suitable Fire Extinguishing Agents: powder fire extinguishing agent, CO2, general foam, water.
 - o Unsuitable Fire Extinguishing Agents: no data.
 - o For Big Fires: use a general fire extinguishing agent and a finite water spray.
- b) Specific hazards arising from the chemical
 - o Pyrolysis Products: carbon oxide.
 - o Fire and Explosion risk: slight risk of fire.
- c) Special protective equipment and precautions for fire-fighters
 - o Move the case from near the fire if work can be done without risk.
 - o Spray high pressure water on the leaked substances so that they will not spread.
 - o Construct a bank for further processing.
 - o Use the fire extinguishing agent that has been found effective in fighting fires.

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- o Avoid inhalation of the substance itself or the products of combustion.
- o Face the wind and avoid lower areas.

6. Accidental release measures

- a) Actions and Protective Devices Required to Protect the Body
 - o Stop leaks if it can be done without risk to the worker.
- b) Actions to Protect the Environment
 - o Air: no data.
 - o Soil: no data.
 - o Water: no data.
- c) Purification or Removal Method
 - o Small Spillages
 - For further disposal, move the leaked substance to a suitable case and dispose.
 - Absorb using nonflammable substances.
 - Quarantine the exposed area and control access except for related personnel.
 - o Big Spillages: no data.

7. Handling and storage

- a) Tips for Safe Handling: no data
- b) Safe Storage
 - o Avoid contact with halogens or intermediate halogens.
 - o Store and use in accordance with the laws and regulations of the relevant government department and provincial self-governing bodies.
 - o Store in a well ventilated place.

8. Exposure controls & personal protection

- a) Chemical Exposure Criteria, Biological Exposure Criteria
 - o Domestic Regulations: no data.
 - o ACGIH Regulations: no data.
 - o Biological Exposure Criteria: no data.
- b) Suitable Engineering Management
 - o Check whether the work process complies with the allowable standards and exposure standards of the Ministry of Labor.
 - o Install a ventilation device, such as a local exhauster, and ensure a suitable control
 - o Ulsan Factory of SKC wind speed.
- c) Personal Protective Devices
 - o Protection of Respiratory Organs
 - Make sure to wear protective devices certified by KOSHA.

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- o Eye Protection
 - Install an emergency shower and basins for easy use by workers.
 - Wear protective glasses to protect the eyes from flying substances.
- o Hand Protection
 - Wear chemically resistant gloves to avoid direct contact of chemicals with the hands.
- o Body Protection
 - Wear chemically resistant protective wear to prevent exposure of the skin to chemicals.

9. Physical and chemical properties

- a) Appearance (physical state, color etc)
 - Phase : Liquid of achromatic color.
 - Color : colorless
- b) Smell: sweet smell.
- c) Detection threshold: no data.
- d) pH: no data.
- e) Melting Point/Freezing Point: -79 °C.
- f) Initial Boiling Point and Range of Boiling Point: 236 °C.
- g) Flash Point: 93 °C - closed cup.
- h) Evaporation Speed: N/A.
- i) Combustibility (Solid, Gas): no data.
- j) Upper/Lower Limit of Ignition or Explosion: no data.
- k) Steam Pressure: under 1 mmHg (at 25 °C).
- l) Solubility: water soluble: 1000g/L.
- m) Steam Density: 7.1 (air=1).
- n) Specific Gravity: 0.96 (water=1).
- o) n-Octanol/Water Partition Coefficient: 0.31 (estimated value).
- p) Spontaneous Combustion Temperature: no data.
- q) Decomposition Temperature: no data.
- r) Viscosity: 6 MPAS (at 25°C).
- s) Molecular Weight: 206.

10. Stability and reactivity

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- a) Chemical stability and possibility of hazardous reaction
 - o Polymerization: does not polymerize.
 - o Stable under recommended storage conditions.
- b) Conditions to avoid (e.g. static discharge, shock or vibration, etc)
 - o Avoid heat, flames, sparks and other sources of ignition.
 - o Avoid contact with substances that are prohibited from mixing with it.
- c) Substances to Avoid: Strong oxidizing agents
- d) Hazardous decomposition products : no data

11. Toxicological information

- a) Information on the likely routes of exposure
 - o May cause irritation, vomiting , headache, dizziness or intoxication.
- b) Health hazards information
 - o Acute Toxicity
 - Oral: LD50 3,400 mg/kg rat.
 - Percutaneous: LD50 15,400 mg/kg rabbit.
 - Inhalation: LC50> 30ppm. 8hr, rat.
 - o Skin Corrosion or Irritation
 - Based on skin irritation values, not classified.
 - o Severe Eye Damage or Irritation
 - Not classified. May cause slight transient eye irritation
 - o Hypersensitivity of Respiratory Organs : no data.
 - o Skin Hypersensitivity: no data.
 - o Carcinogenicity
 - Occupational Safety and Health Acts: no data.
 - Notice of Ministry of Labor: no data.
 - IARC: no data.
 - OSHA: no data.
 - ACGIH: no data.
 - NTP: no data.
 - EU CLP: no data.
 - o Reproductive Toxicity
 - Not classified. No adverse effect observed.
 - o Specific Target Organ Toxicity (One Exposure): no data.
 - o Specific Target Organ Toxicity (Repeated Exposure):
 - Based on repeated exposure toxicity values, Not classified.
 - o Aspiration hazard

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- Based on physic-chemical values or lack of human evidence, not classified.

12. Ecological information

- a) Reproductive Toxicity
 - o Fish : Acute toxicity to fish is low.
 - o Daphnia and other aquatic invertebrates : Acute toxicity to freshwater and marine invertebrates is very low.
 - o Algae: Acute toxicity to aquatic plants very low.
- b) Persistence and degradability
 - o 60%, Rapidly degradable. (After 22 days in a ready biodegradability test)
- c) Bioaccumulation
 - o Bioconcentration factor(BCF) : 3.16, Method-QSAR calculated value, This material in not expected to bioaccumulate.
- d) Mobility in soil : 68.8 mN/m , 1,000mg/l at 20°C, Stability in soil
- e) Other Hazardous Effects
 - o Stability in water

13. Disposal considerations

- a) Disposal method : no data
- b) Disposal precaution
 - o Do not dump into any sewers, on the ground, or into any body of water
 - o Any disposal practice must be in compliance with all Federal, State/Provincial and local laws and regulations
 - o

14. Transport information

- a) UN number : not available.
- b) UN proper shipping name : N/A.
- c) Transport hazard class : N/A.
- d) Case Grade : N/A.
- e) Marine pollution : no data.
- f) Special Measures That a User Should Know with Regard to Transportation or Means of Transportation
 - o Emergency measures for fire : N/A
 - o Emergency measures for leakages : N/A

15. Regulatory information

- a) SARA 302/304 : This product contains no known chemical regulated under

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SARA 302/304.

b) SARA 313 : This product contains no known chemical regulated under SARA 313

c) State Reporting

This material is not known to contain a chemical substance known to the State of California to cause cancer, reproductive, or developmental toxicity under California Proposition 65. However, SKC has not tested for the presence of listed chemical substances.

This product contains no known chemicals regulated by New Jersey's Worker and Community Right to Know Act

No components are subject to the Massachusetts Right to Know Act.

This product contains no known chemicals regulated by Pennsylvania's Right to Know Act.

d) Regulations of Other Domestic and Foreign Acts

o Domestic Regulations

– Residue-Prone Organic Pollutant Management Act: N/A.

o Foreign Regulations

– America Management Information (OSHA Regulations): N/A.

– America Management Information (CERCLA Regulations): N/A.

– America Management Information (EPCRA 302 Regulations): N/A.

– America Management Information (EPCRA 304 Regulations): N/A.

– America Management Information (EPCRA 313 Regulations): N/A.

– America Management Information (Rotterdam Convention): N/A.

– America Management Information (Stockholm Convention): N/A.

– America Management Information (Montreal Protocol): N/A.

– EU Classification Information (Fixed Classification): N/A.

– EU Classification Information (Risk Words): N/A.

– EU Classification Information (Safety Words): N/A.

16. Other information

a) Sources of Data

o IUCLID (Oral)

o IUCLID (Percutaneous)

o IUCLID (Inhalation)

o IUCLID (Skin Corrosion or Irritation)

o IUCLID (Severe eye damage or irritation)

o SIDS (Severe eye damage or irritation)

o IUCLID (Mutagenesis of Reproductive Cells)

o IUCLID (Reproductive Toxicity)

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- o IUCLID (Specific Target Organ Toxicity (Repeated Exposure))
 - o SIDS (Specific Target Organ Toxicity (Repeated Exposure))
 - o IUCLID (Fish)
 - o IUCLID (Crustaceans)
 - o IUCLID (Residual Tendency)
 - o EPIWIN (Condensability)
 - o SIDS (Bio-resolvability)
- b) Date of Initial Creation: 2010-06-27.
- c) Number of Revisions and Final Date of Revision
- o Number of Revisions: 2 times.
 - o Final Revision Date : 2015-05-27.
- d) Others : KOSHA(Korea Occupational Safety & Health agency)

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