

Safety Data Sheet (MSDS)

Issued Date : 14 January, 2009

Revised Date : 10 November, 2025

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : TAT SPECIAL TYPE SOLVENT
 SOL-22, SOL-1-22 (Small bottle), SOL-3-22 (Large bottle)

Company Name : Shachihata Inc.

Address : 4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan

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Emergency Call : + 81- 52- 521- 3600 (Shachihata Inc. [Japan])

Recommended use : Stamp ink solvent

SECTION 2 HAZARDS IDENTIFICATION

GHS Classification

Physical Hazards

Flammable liquids Category 3

Health Hazards

Acute toxicity (oral) Category 4

Acute toxicity (inhal.) Category 4

Skin irritation Category 2

Serious eye damage Category 1

Specific target organ toxicity ; single exposure Category 3 (respiratory tract irritation, narcotic effects)

Specific target organ toxicity ; repeated exposure Category 2 (central nervous system, respiratory system)

Aspiration hazard Category 1

Environmental Hazards

Hazardous to the aquatic environment (acute) Classification not possible

Hazardous to the aquatic environment (chronic) Classification not possible

Hazardous to the ozone layer Classification not possible

LABEL ELEMENTS

Symbols



Signal word : Danger

Hazard statement :

- Flammable liquid and vapour (H226)
- Harmful if swallowed (H302)
- Harmful if inhaled (H332)
- Causes skin irritation (H315)
- Causes serious eye damage (H318)
- May cause respiratory irritation (H335)
- May cause drowsiness or dizziness (H336)
- May cause damage to organs through prolonged or repeated exposure (central nervous system, respiratory system) (H373)
- May be fatal if swallowed and enters airways (H304)

Precautionary statement

【Prevention】

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)

Take action to prevent static discharges.

(P243)

Do not breathe vapours.

(P260)

Wash hands thoroughly after handling.

(P264)

Do not eat, drink or smoke when using this product.

(P270)

Use only outdoors or in a well-ventilated area.

(P271)

Wear protective gloves and eye protection .

(P280)

【Response】

IF SWALLOWED : Immediately call a POISON CENTER or physician.

(P301+P310)

IF ON SKIN : Wash with plenty of water and soap.

(P302+P352)

IF ON SKIN (or hair) : Take off immediately all contaminated clothing. Rinse skin with water.

(P303+P361+P3

IF INHALED : Remove person to fresh air and keep comfortable for breathing.

(P304+P340)

IF IN EYES : Rinse cautiously with water for several minutes.

(P305+P351+P3

Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or physician.

(P310)

Rinse mouth.

(P330)

Do NOT induce vomiting.

(P331)

If skin irritation occurs : Get medical advice and attention.

(P332+P313)

In case of fire : Use dry chemical powder, foam or carbon dioxide to extinguish.

(P370+P378)

【Storage】

Store in a well-ventilated place. Keep container tightly closed.

(P403+P233)

【Disposal】

Dispose of contents and container in accordance with local regulations.

(P501)

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Ingredients :

Chemical Name / Generic name	Composition weight %	CAS Registry No.	Hazard Class (category)	Hazard statement
Xylene	30 ~ 40	1330-20-7	Flam. Liq. 3 Acute Tox.(dermal) 4 Acute Tox.(inhal.) 4 Skin Irrit. 2 Eye Irrit. 2A STOT. SE. 3 STOT. RE. 2 Asp.Tox. 1	H226 H312 H332 H315 H319 H335 H373 H304
Ethylbenzene	35 ~ 45	100-41-4	Flam. Liq. 2 Acute Tox.(inhal.) 4 STOT. RE. 2 Asp.Tox. 1	H225 H332 H373 H304
Butan-1-ol	20 ~ 30	71-36-3	Flam. Liq. 3 Acute Tox.(oral) 4 Skin Irrit. 2 Eye Dam. 1 STOT. SE. 3	H226 H302 H315 H318 H335+H336
total	100			

SECTION 4 FIRST-AID MEASURES

IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Consult a doctor if symptoms persist.

IF ON SKIN : Remove / Take off immediately all contaminated clothing. Wash with soap and water.
If skin irritation/rash occurs or feel unwell, consult a doctor for medical advice.

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.

IF SWALLOWED : After rinse mouth immediately, give about 250 ml of water or milk and thin in the stomach, and do not vomit forcibly. Moreover, do not give anything from the mouth to the patient

when not conscious. Receive the doctor's treatment (stomach pump) promptly.

SECTION 5 FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA : Dry chemical powder, foam or carbon dioxide

UNSUITABLE EXTINGUISHING MEDIA : Water jet

SPECIFIC EXTINCTION METHOD

For initial stage extinction, carbon dioxide or dry chemical powder.

When a fire extends, fire is extinguished by a large amount of water spray.

Do not discharge extinguishing waters into the aquatic environment.

SPECIAL PROTECTIVE FOR FIRE- FIGHTERS

In the extinction work, an appropriate protective equipment (gloves, glasses, and mask) has to be worn.

Because during a fire, hazardous gases may be generated, fire-fighters have to wear self-contained breathing apparatus and other protective equipment.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Evacuate personnel to safe area. Shut off all sources of ignition.

No Flares, smoking or flame in area. Put on protective equipment. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

Do not throw the leakage thing directly into environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

In case of a small spill, remove by absorbing with absorbents (sawdust, soil, sand, waste cloth, etc.), and then wipe off the waste well with waste cloth, and rag.

In case of large spills, prevent leakage by enclosing with nonflammables (earth and sand, etc.) and collect into empty container by scoop, suction equipment or the like.

SECONDARY ACCIDENT PREVENTION MEASURE

All ignition sources should be quickly removed. (No smoking in vicinity, prohibit sparks or fire sources.)

SECTION 7 HANDLING AND STORAGE

Handling : Use with adequate ventilation.

Avoid contact with skin, eyes and clothing.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not eat, drink or smoke when using this product.

Storage : Keep containers tightly closed and store in a cool and dry place.

Keep away from heat and flame, ignition source and sunlight.

Keep out of the reach of children.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMIT

ACGIH (2020)

Xylene	TWA	100 ppm
Ethylbenzene	TWA	20 ppm
Butan-1-ol	TWA	20 ppm

OSHA PEL

Xylene	TWA	100 ppm
Ethylbenzene	TWA	100 ppm
Butan-1-ol	TWA	100 ppm

DIRECTIVE 2000/39/EC

Xylene	TWA	50 ppm
Ethylbenzene	TWA	100 ppm

Japan Society for Occupational Health (2020)

Xylene	TWA	50 ppm
Ethylbenzene	TWA	20 ppm
Butan-1-ol	TWA	50 ppm

PERSONAL PROTECTION

- Respiratory Protection : Use with local exhaust ventilation, when in long use.
Avoid breathing vapours. Wear mask to prevent organic gas, if necessary.
- Hand Protection : Avoid contact with hands. Wear safety gloves, if necessary.
- Eye Protection : Avoid contact with eyes. Wear safety glasses, if necessary.
- Skin Protection : Avoid skin contact. Wear personal protection apron, boots, if necessary.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Colourless liquid
- Odour : Solvent odour
- pH : Not applicable
- Boiling point : 118 ~ 136 °C
- Flash point : 24 °C (closed cup)
- Relative Density (at 25°C) : 0.8 ~ 0.9 (g/cm³)
- Solubility in Water : Insoluble

SECTION 10 STABILITY AND REACTIVITY

- Stability : Stable under normal handling.
- Conditions to Avoid : High temperature, Direct sunlight, Fire
- Incompatible Materials : Strong oxidising agents
- Hazardous Decomposition Products : CO, CO₂

SECTION 11 TOXICOLOGICAL INFORMATION

- Acute toxicity : LD/LC50 values that are relevant for classification
- | | | | |
|----------------|------|-----------------------|--|
| [Xylene] | | | |
| Oral-rat | LD50 | >2,000 - ≤5,000 mg/kg | |
| Dermal-rabbit | LD50 | >1,000 - ≤2,000 mg/kg | |
| Inhalation-rat | LC50 | >10 - ≤20 mg/L/4h | |
| [Ethylbenzene] | | | |
| Oral-rat | LD50 | >2,000 - ≤5,000 mg/kg | |
| Dermal-rabbit | LD50 | >5,000 mg/kg | |
| Inhalation-rat | LC50 | >10 - ≤20 mg/L/4h | |
| [Butan-1-ol] | | | |
| Oral-rat | LD50 | >300 - ≤2,000 mg/kg | |
| Dermal-rabbit | LD50 | >2,000 mg/kg | |
| Inhalation-rat | LC50 | >20 mg/L/4h | |
- Acute toxicity (oral) : Category 4 Harmful if swallowed
- Acute toxicity (inhal.) : Category 4 Harmful if inhaled
- Skin irritation : Category 2 Causes skin irritation
- Serious eye damage : Category 1 Causes serious eye damage
- Specific target organ toxicity : Category 3 May cause respiratory irritation
; single exposure May cause drowsiness or dizziness
- Specific target organ toxicity : Category 2 May cause damage to organs through prolonged or repeated
; repeated exposure exposure (central nervous system, respiratory system)
- Aspiration hazard : Category 1 May be fatal if swallowed and enters airways
- Carcinogenicity : Regarding the carcinogenicity of ethylbenzene, International Agency for Research on Cancer (IARC) has classified as a group 2B. ACGIH(American Conference of Governmental Industrial Hygienists) has classified as a group A3. The Japan Society for Occupational Health has classified as a group 2B.

SECTION 12 ECOLOGICAL INFORMATION

- Hazardous to the aquatic environment (acute) : Classification not possible
- Hazardous to the aquatic environment (chronic) : Classification not possible

Hazardous to the ozone layer

: Classification not possible

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal must be made according to official regulations.

Comply with all Federal, State, and Local regulations regarding disposal.

Do not allow product to reach ground, any water course or sewage system.**SECTION 14 TRANSPORT INFORMATION**

UN number (DOT, ADR, IMDG, IATA) : UN1993

UN proper shipping name (DOT, ADR, IMDG, IATA) : FLAMMABLE LIQUID, N.O.S.
(Xylene, Ethylbenzene, Butan-1-ol)

UN Classification : 3

Packing group (DOT, ADR, IMDG, IATA) : III

Marine pollutant (Y/N) : N

EmS number : F-E,S-E

**SECTION 15 REGULATORY INFORMATION**

< EU Information >

Regulation (EC) No 1272/2008 (CLP)

Substance name : [Xylene]

Hazard Class & Category : Flammable liquids, Category 3
Acute toxicity - Dermal, Category 4
Acute toxicity - Inhalation, Category 4
Skin irritation, Category 2

Symbols : GHS02,GHS07

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour
H312 Harmful in contact with skin
H332 Harmful if inhaled
H315 Causes skin irritation

Substance name : [Ethylbenzene]

Hazard Class & Category : Flammable liquids, Category 2
Acute toxicity - Inhalation, Category 4
Aspiration hazard, Category 1
Specific target organ toxicity ; repeated exposure, Category 2

Symbols : GHS02,GHS07,GHS08

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour
H332 Harmful if inhaled
H304 May be fatal if swallowed and enters airways
H373 May cause damage to organs through prolonged or repeated exposure

Substance name : [Butan-1-ol]

Hazard Class & Category : Flammable liquids, Category 3
Acute toxicity - Oral, Category 4
Skin irritation, Category 2
Serious eye damage, Category 1
Specific Target Organ Toxicity(Single Exposure), Category 3

Symbols : GHS02,GHS05,GHS07

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour
H302 Harmful if swallowed
H315 Causes skin irritation
H318 Causes serious eye damage
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness

< USA Information >

OSHA STATUS : This product is hazardous under 29 CFR 1910.1200.

TSCA STATUS : All components on TSCA INVENTORY.

TSCA Hazard Communication Program (40 CFR Part 721) (SNUR) : Not Applicable

CERCLA REPORTABLE QUANTITY (40 CFR 117,302) : Listed

Xylene, reportable quantity 100 pounds

Ethylbenzene, reportable quantity 1,000 pounds

Butan-1-ol, reportable quantity 5,000 pounds

SARA TITLE III Section 313 (40 CFR 372)

: Listed [Xylene, Ethylbenzene, Butan-1-ol]

California Proposition 65

: Listed [Ethylbenzene]

Refer to any other federal, state, EU, national and local regulations.

SECTION 16 OTHER INFORMATION



EU RoHS Directive(2011/65/EC)

ELV Directive(2000/53/EC)

This data sheet may not be enough when evaluating danger or hazard. The above information, which is created from currently available documents, information and data, may be revised when new findings announced. This document has been written on the assumption that when dealing with a large amount of ink on the business case and emergency. When handling as a normal product, please refer to the notes that is described in the produce or packaging. The information contained herein is not intended to provide any kind of warranty other than information, there is no guarantee for the accuracy of the content.