

Safety Data Sheet TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

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SECTION 1: Identification

GHS Product identifier

Product name TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

Recommended use of the chemical and restrictions on use

Laboratory and Analytical Reagent

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Aspiration hazard, Cat. 1
- Serious eye damage/eye irritation, Cat. 1
- Flammable liquids, Cat. 3
- Corrosive to metals, Cat. 1
- Skin corrosion/irritation, Cat. 1A

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H226 Flammable liquid and vapor
H290 May be corrosive to metals
H304 May be fatal if swallowed and enters airways
H314 Causes severe skin burns and eye damage

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234 Keep only in original packaging.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/physician
P331 Do NOT induce vomiting.
P370+P378 In case of fire: Use agents recommended in Section 5 of SDS for extinction
P390 Absorb spillage to prevent material-damage.
P403+P235 Store in a well-ventilated place. Keep cool.
P406 Store in a corrosive resistant/... container with a resistant inner liner.
P501 Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Hazardous components

Component	Concentration
Acetic acid (CAS no.: 64-19-7; EC no.: 200-580-7; Index no.: 607-002-00-6)	<= 35 % (volume)
CLASSIFICATIONS: Flammable liquids, Cat. 3; Skin corrosion/irritation, Cat. 1A. HAZARDS: H226 - Flammable liquid and vapor; H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 90 %; Skin Corr. 1B; H314: 25 % ≤ C < 90 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %	
XYLENES (MIXED) (CAS no.: 1330-20-7; EC no.: 215-535-7; Index no.: 601-022-00-9)	<= 65 % (volume)
CLASSIFICATIONS: Flammable liquids, Cat. 3; Acute toxicity, inhalation, Cat. 4; Acute toxicity, dermal, Cat. 4; Skin corrosion/irritation, Cat. 2. HAZARDS: H226 - Flammable liquid and vapor; H312 - Harmful in contact with skin; H315 - Causes skin irritation; H332 - Harmful if inhaled. [SCLs/M-factors/ATEs]: *	

SECTION 4: First-aid measures

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
In case of skin contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
In case of eye contact	If in eyes, hold eyelids apart and flush eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.
If swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Specific Methods: Small fire: Use dry chemical, CO₂, water spray or foam.

Large fire: Use water spray, fog or foam.

If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

Specific hazards arising from the chemical

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon oxides

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 25m - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds. Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal.

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

Precautions for safe handling

Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 64-19-7 (EC: 200-580-7)

Acetic acid

ACGIH (USA): 15 ppm STEL inhalation; 10 ppm, (ST) 15 ppm TLV® inhalation; 10 ppm TWA inhalation; AU/SWA (Australia): 15 ppm; 37 mg/m³ STEL inhalation; 10 ppm; 25 mg/m³ TWA inhalation;

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear to cloudy
Color	Colourless
Odor	Characteristic
Odor threshold	No data available.
Melting point/freezing point	No data available.

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	~30C (cc) Xylene
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Non miscible with water
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	No data available.
Relative vapor density	No data available.

Particle characteristics

No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Risk of ignition. Vapours may form explosive mixtures with air

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Vapours may form explosive mixture with air.

Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

Hazardous decomposition products

Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

// ----- From the Suggestion report (03/05/2023, 9:25 AM) ----- //
The ATE (dermal) of the mixture is: 1692.31 mg/kg bw

// ----- From the Suggestion report (03/05/2023, 9:25 AM) ----- //
The ATE (gas inhalation) of the mixture is: 6923.08 ppmV

Skin corrosion/irritation

Causes severe skin burns.

Serious eye damage/irritation

Risk of serious damage to eyes.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional information

XYLENES (MIXED): *TOXICITY:

typ. dose mode specie amount unit other

TCLo ihl hmn 200 ppm

LCLo ihl man 10000 ppm/6H

LD50 orl rat 4300 mg/kg

LC50 ihl rat 5000 ppm/4H

LD50 scu rat 1700 mg/kg

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

LD50 ipr mus 1548 mg/kg
LDLo ipr gpg 2000 mg/kg
LDLo ipr mam 2000 mg/kg
LCLo ihl gpg 450 ppm
LDLo orl hmn 50 mg/kg

*AQTX/TLM96: 100-10 ppm

*SAX TOXICITY EVALUATION:

THR = MODERATE via inhalation and oral routes.

*CARCINOGENICITY:

Review: IARC Cancer Review: Human Inadequate Evidence

IARC Cancer Review: Animal Inadequate Evidence

IARC: Not classifiable as a human carcinogen (Group 3) [610]

Status: NTP Carcinogenesis Studies (Gavage); No Evidence: Male and Female Rat, Male and Female Mouse [620]

*MUTATION DATA:

test lowest dose | test lowest dose

----- | -----

cyt-smc 1 mmol/tube |

*TERATOGENICITY:

Reproductive Effects Data:

TCLo: ihl-rat 1000 mg/m³/24H (9-14D preg)

TCLo: ihl-rat 50 mg/m³/6H (1-21D preg)

TCLo: ihl-rat 600 mg/m³/24H (7-15D preg)

TDLo: orl-mus 20600 ug/kg (6-15D preg)

TCLo: ihl-mus 4000 ppm/6H (6-12D preg)

TDLo: orl-mus 31 mg/kg (6-15D preg)

TCLo: ihl-mus 2000 ppm/6H (6-12D preg)

*STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: Federal Register (1/19/89) and 29 CFR 1910.1000 Subpart Z

Transitional Limit: PEL-TWA 100 ppm [610]

Final Limit: PEL-TWA 100 ppm; STEL 150 ppm [610]

ACGIH: TLV-TWA 100 ppm; STEL 150 ppm [610]

NIOSH Criteria Document: Recommended Exposure Limit to this compound-air:

TWA 100 ppm; Ceiling Limit 200 ppm/10M [015,610]

NFPA Hazard Rating: Health (H): 2

Flammability (F): 3

Reactivity (R): 0

H2: Materials hazardous to health, but areas may be entered freely with full-faced mask self-contained breathing apparatus which provides eye protection (see NFPA for details).

F3: Materials which can be ignited under almost all normal temperature conditions (see NFPA for details).

R0: Materials which are normally stable even under fire exposure conditions and which are not reactive with water (see NFPA for details).

*OTHER TOXICITY DATA:

Skin and Eye Irritation Data:

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

eye-hmn 200 ppm

skn-rbt 100% MOD

skn-rbt 500 mg/24H MOD

eye-rbt 87 mg MLD

eye-rbt 5 mg/24H SEV

Standards and Regulations: DOT-Hazard: Flammable liquid; Label: Flammable liquid

DOT-IMO: Flammable or Combustible liquid; Label:

Flammable liquid

Status: NIOSH Analytical Methods: see hydrocarbons, aromatic, 1501

EPA TSCA Chemical Inventory, 1986

EPA TSCA 8(a) Preliminary Assessment Information, Final Rule

EPA Genetox Program 1986, Negative: In vitro SCE-human lymphocytes;

In vitro SCE-human

EPA TSCA Test Submission (TSCATS) Data Base, December 1986

Meets criteria for proposed OSHA Medical Records Rule

SECTION 12: Ecological information

Toxicity

No data available on product

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

Safety Data Sheet

TBN No 4 (Alternate Solvent) (Acetic acid/Xylenes (1:2)) Total Base Number ASTM D2896

ADG (Road and Rail)

UN Number: 2924

Class: 3,8

Packing Group: III

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains Xylene, Acetic Acid)

Hazchem emergency action code (EAC)

•3W

IMDG

UN Number: 2924

Class: 3,8

Packing Group: III

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains Xylene, Acetic Acid)

IATA

UN Number: 2924

Class: 3,8

Packing Group: III

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains Xylene, Acetic Acid)

SECTION 15: Regulatory information

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)