

Product Name: Triisopropanolamine 85%

Date of revision: 2018/2/1

Version: 4.0

SAFETY DATA SHEET

SECTION 1 IDENTIFICATION

1.1 Product identifier

Trade name: Triisopropanolamine / TIPA
Chemical name: 1, 1', 1''-Nitrilotri-2-PROPANOL

1.2 Recommended use of the chemical and restrictions on use

Identified uses: Chemical additive. Chemical intermediate.
Restrictions on use: No data available.

1.3 Supplier

Name :Far-East Chemical Trading Co., Ltd.
Address: Azuchimachi, Chuo-ku, Osaka, 541-0052,JAPAN
Telephone: 0081-6-6262-2764
E-mail: trade@fect.co.jp

SECTION 2 HAZARDS IDENTIFICATION

2.1 Hazard classification

Serious eye damage/eye Irritation- Category 2

2.2 Label elements

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Hazard pictograms



Signal word: **Warning!**

Hazards

Causes eye irritation.

Precautionary statements

Prevention:

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

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.

2.3 Other hazards

No information available

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Chemical Entity	CAS No.	Proportions (%)
Triisopropanolamine	[122-20-3]	85.0 min.
Water	[7732-18-5]	10.0-15.0

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SECTION 4 FIRST-AID MEASURES

4.1 Description of first aid measures

General advice:

In all cases of doubt, or when symptoms persist, seek medical attention.

Eye contact:

Immediately flush eyes in clear running water for at least 15 minutes, lifting upper and lower lids periodically. Get medical consultant immediately and preferable an eye specialist.

Skin contact:

Wash off in flowing water.

Ingestion:

Seek medical consultant. Do not vomit unless directed to do so by a medical personnel.

Inhalation:

Remove the patient to fresh air.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

4.3 Indication of the immediate medical attention and special treatment needed

No information available.

SECTION 5 FIRE-FIGHTING MEASURES

5.1 Extinguishing Media:

Suitable extinguishing media: Water fog or fine spray, carbon dioxide, dry chemical, foam. Alcohol resistant foams are preferred if available.

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Unsuitable extinguishing media: Do not use direct water stream. Will spread fire.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating or toxic gases/vapors.

5.3 Advice for fire-fighters

Fire-fighters should wear appropriate breathing apparatus and protective equipment. Fire-fighting in the wind. Ensure adequate ventilation. Move container from fire area if it can be done without risk. Cool containers with water spray. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear adequate protective equipment (Refer to Section 8) . Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing.

6.2 Environmental precautions

Do not discharge into drains/surface waters/groundwater. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Use this material with adequate ventilation. Do not get in eyes, on skin, or on clothing. Use personal protective equipment as required. Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling.

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7.2 Conditions for safe storage

Store sealed in a cool, dry, well ventilated area away from acids, alkali, oxidizers, toxic or corrosive materials, combustible or explosive materials, long exposure to the sunlight. Avoid contacting with copper or copper containing metals.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Not data available.

8.2 Exposure controls

Appropriate engineering controls

Provide local exhaust or process enclosure ventilation system. Prepare safety shower and eye wash equipment.

Personal protective equipment:

Eye and protection: Wear appropriate protective eyeglasses or chemicalsafety goggles.

Hand protection: Wear appropriate protective gloves to prevent hand exposure.

Skin protection: Wear suitable protective clothing.

Respiratory protection: In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls:

Avoid entering into surface water or sanitary sewer system.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

For TIPA 85%

Appearance: Colorless to light yellow liquid

Odor: Light ammonia odor

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Odor threshold:	N/A
PH:	N/A
Melting Point/Freezing point:	3-8°C
Boiling point:	104-107°C
Flash Point:	154°C on dry base
Evaporation rate:	N/A
Flammability:	Not applicable to liquid
Upper explosion limits:	N/A
Lower explosion limits:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Relative Density (25/4°C):	1.01
Solubility(ies):	Soluble in water and any ethyl alcohol
Partition coefficient: n-octanol/water:	N/A
Auto-ignition temperature:	N/A
Decomposition temperature:	N/A
Formula:	C ₉ H ₂₁ NO ₃
Color:	Colorless to light yellow

SECTION 10 STABILITY AND REACTIVITY**10.1 Reactivity** No data available**10.2 Chemical stability** Stable under recommended storage conditions in Section 7.**10.3 Possibility of hazardous reactions** Hazardous polymerization: Will not occur.**10.4 Conditions to avoid** Product can decompose at elevated temperature.**10.5 Incompatible materials** Strong oxidizing materials, strong acid.

10.6 Hazardous decomposition products Hazardous decomposition products depend on temperature, air and the presence of other materials. Hazardous decomposition products may include and are not limited to Nitrogen oxide.

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SECTION 11 TOXICITY INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Oral: LD50= 4000 mg/kg (Rat)

Inhalation: Not available.

Dermal: LD50: > 5000 mg/kg (rabbit, female)

Skin corrosion/irritation: Rabbit test: slightly irritating.

Serious eye damage/irritation: Rabbit test: Irritating.

Respiratory or skin sensitization: Guinea pig: Not sensitizing.

Germ cell mutagenicity: Evaluation of results: negative.

Carcinogenicity: Not listed by the International Agency for Research on Cancer (IARC)

Reproductive toxicity: Insufficient data to classify.

STOT-single exposure: Insufficient data to classify.

STOT-repeated exposure: Insufficient data to classify.

Aspiration hazard: Insufficient data to classify.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Acute fish toxicity: LC50= 3158.48 mg/L/96h (Leuciscus idus)

Acute daphnia toxicity: EC50> 500 mg/L/48h (Daphnia magna)

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Acute algae toxicity: EC50 = 50 mg/L/72h (*Scenedesmus subspicatus*)

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Not a PBT and vPvB substance.

12.6 Other adverse effects

No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Dispose in accordance with all applicable federal, state/regional and local laws and regulations. Recommended wash container recycling.

This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

SECTION 14 TRANSPORTATION INFORMATION

14.1 Classification for ROAD and Rail transport

Not regulated for transport

14.2 Classification for SEA transport (IMO-IMDG)

Not regulated for transport

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14.3 Classification for AIR transport (IATA-IACO)

Not regulated for transport

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulation:

Authorisations: No information available.

Restrictions on use: No information available.

EINECS: listed in.

DSD (67/548/EEC): listed in.

15.2 Chemical Safety Assessment

Chemical Safety Assessment has not been carried out for this product.

SECTION 16 OTHER INFORMATION

16.1 Revision

Date of the previous revision: 2015/11/16

Date of this revision: 2016/08/29

Version: 4.0

16.2 Information source and reference

The information for this SDS is provided by internal reference within our company.

The information contained herein is believed to be accurate. However, it is provided solely for the customer's consideration, investigation and verification.