SAFETY DATA SHEET

Revision date: 17-Jun-2024

Revision Number 2

Section 1: Identification

Product identifier

Product Name TRIISOPROPANOLAMINE 85%

Product Code(s) 000000053608

Other means of identification

Synonyms TIPA 85%

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended use Additive. Chemical intermediate.

Uses advised against No information available.

Details of manufacturer or importer

Supplier
IXOM Operations Pty Ltd
ABN: 51 600 546 512
Level 8, 1 Nicholson Street
Melbourne 3000
Australia

Telephone Number: +61 3 9906 3000

Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

Section 2: Hazard identification

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS). Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

GHS Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

Label elements
Corrosion
Exclamation mark

Signal word
DANGER

Hazard statements
H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wash eyes thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/clothing and eye/face protection.
Use personal protective equipment as required.
Precautionary Statements - Response
Specific treatment (see First aid on this SDS).
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Precautionary Statements - Disposal
Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Other hazards which do not result in classification

Section 3: Composition and information on ingredients

Chemical name	CAS No.	Weight-%
Triisopropanolamine	122-20-3	>=85.0%
Water	7732-18-5	10.0-15.0%

Section 4: First aid measures

Description of first aid measures

General advice For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

Inhalation Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. (Call a physician if symptoms occur).

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

	eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
Skin contact	Wash skin with soap and water. (Call a physician if symptoms occur).
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Coughing and/ or wheezing. Difficulty in breathing.
Effects of Exposure	No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically. Can cause corneal burns.

Section 5: Firefighting measures

Suitable Extinguishing Media

Suitable extinguishing media	Dry chemical, CO2, water spray or alcohol-resistant foam.
Unsuitable extinguishing media	Solid water jet/stream may scatter and spread the fire.

Specific hazards arising from the chemical

Specific hazards arising from the chemical	Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. Sealed containers may rupture when heated. Cool drums with water spray. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. Use personal protective equipment as required. Wash thoroughly after handling.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Dike far ahead of spill to collect runoff water. Stop leak if you can do it without risk. Do not touch or walk through spilled material. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protection equipment. Wash thoroughly after handling.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Keep container closed when not in use.

Packaging materials Do not store in copper or copper alloy containers.

Incompatible materials Acids. Alkalis. Oxidizing agents. Copper. Copper alloys.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits No value assigned for this specific material by Safe Work Australia.

Appropriate engineering controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

Eye/face protection	Goggles.
Skin and body protection	Wear suitable protective clothing. Boots. Overalls.
Hand protection	Impervious gloves.
Respiratory protection	If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Environmental exposure controls	No information available.
Thermal hazards	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Colourless to Light yellow
Odor	Light Ammonia
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Melting point / freezing point	-4℃	
Boiling point / boiling range	108℃	
Flash point	160℃ on dry base	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Relative density	1.030 (20/4℃)	
Water solubility	Miscible in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Section 10: Stability and reactivity

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under recommended storage conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid Elevated temperatures.

Incompatible materials

Incompatible materials Acids. Alkalis. Oxidizing agents. Copper. Copper alloys.

Hazardous decomposition products

Hazardous decomposition products Nitrogen oxides.

Section 11: Toxicological information

Information on likely routes of exposure

Product Information No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:

Inhalation Irritating to respiratory system.

Eye contact Causes serious eye damage.

Skin contact Causes skin irritation.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Coughing and/ or wheezing. Difficulty in breathing.

Acute toxicity .

Numerical measures of toxicity - Product Information
No information available

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Triisopropanolamine	= 4730 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-

Water	> 90 mL/kg (Rat)	-	-

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Causes skin irritation. Classification is based on mixture calculation methods based on component data.

Serious eye damage/eye irritation Causes serious eye damage. Classification is based on mixture calculation methods based on component data.

Respiratory or skin sensitization Not a skin sensitiser (guinea pig).

Germ cell mutagenicity No information available.

Carcinogenicity Not listed as carcinogenic according to IARC.
(IARC - International Agency for Research on Cancer).

Reproductive toxicity No information available.

STOT - single exposure May cause respiratory irritation. Classification is based on mixture calculation methods based on component data.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity Keep out of waterways.

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Triisopropanolamine	-0.015

Mobility

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

Section 13: Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with federal, state and local regulations.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

See section 8 for more information

Section 14: Transport information

ADG Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

IATA Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

IMDG Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available

Section 15: Regulatory information

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

National regulations

Australia

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.
See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)
No poisons schedule number allocated
Poison Schedule Number Not applicable

Australian Industrial Chemicals Introduction Scheme (AICIS)
Contact supplier for inventory compliance status

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Triisopropanolamine - 122-20-3	Present	-
Water - 7732-18-5	Present	-

Illicit Drug Precursors/Reagents
This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

International Inventories

AIIC	All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.
NZIoC	Contact supplier for inventory compliance status.
TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.

Legend:
AIIC- Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Section 16: Other information

Supplier Safety Data Sheet 01/ 2022

Reason(s) For Issue: 5 Yearly Revised Primary SDS

Prepared By This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and

SDS Services).

Revision date: 17-Jun-2024

Revision Note:

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
Australian Industrial Chemicals Introduction Scheme (AICIS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Disclaimer
This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since IXOM Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their IXOM representative or IXOM Operations Pty Ltd at the contact details on page 1.

IXOM Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet