

Material Safety Data Sheet (MSDS)

Section 1: Chemical Product and Company Identification	
Product Name	Triisopropanolamine (TIPA) 85%
CAS Number	[CH ₃ CH(OH)CH ₂] ₃ N
Chemical Formula	122-20-3
Company Name	CAMACHEM (Part of CAMAL Group) 3F Jinlong East Beijing Station Road Chaoyang District, Beijing, China
Contact	sales@camachem.com
Company Website	www.camachem.com
Section 2: Composition and Information on Ingredients	
Name	1, 1', 1''-Nitrilotri-2-PROPANOL
CAS #	122-20-3
% by Weight	≥ 85
Section 3: Hazards Identification	
Eye Contact:	May cause moderate eye irritation. May cause moderate corneal injury.
Skin Contact:	Prolonged contact may cause slight skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves).
Skin Absorption:	Prolonged skin contact is unlikely to result in absorption of harmful amounts.
Inhalation:	At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material may cause respiratory irritation and other effects.
Ingestion:	Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing

	larger amounts may cause injury. Swallowing may result in gastrointestinal irritation.
Aspiration hazard:	Based on physical properties, not likely to be an aspiration hazard.
Section 4: First Aid Measures	
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.
Inhalation:	Remove the patient to fresh air.
Ingestion:	Seek medical consultant. Do not vomit unless directed to do so by a medical personnel.
Section 5: Fire and Explosion Data	
Flammability of the Product:	Not Applicable.
Auto-Ignition Temperature:	Not Applicable.
Flash Points:	Above 160°C
Flammable Limits:	LFT: Not determined. UFT: Not determined.
Fire Fighting Media and Instructions:	Water fog or fine spray, carbon dioxide, dry chemical, foam. Alcohol resistant foams are preferred if available. Do not use direct water stream. Will spread fire. Fire fighters wear positive-pressure, self-contained breathing apparatus and protective fire-fighting clothing.
Section 6: Accidental Release Measures	
Spill:	The fire source should be removed first and keep the room ventilated. People dealing with the leakage should be protected as the section 5 has said and use enough sodium acid sulfate to cover the leakage. Then saturate with alkali. The waste liquid should be collected and put in open containers.
Section 7: Handling and Storage	
Precautions:	Handle with care. The container should be protected from attack, high pressure, collapse; friction and is not suitable to roll in the case. Labels outside the container should be kept in place. All the related electronic equipment should conform to certain fire

	standards. Most important of all, the outer package should not be damaged.
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. Do not roll containers. Stored in steel containers. Avoid to contact with copper or copper containing metals. When the freezing point of TIPA is low , e.g. 15% of water content, aluminum containers is not suitable. The container and its related equipment should be heated, insulated around 100 °C . Use centrifugal pump to feed TIPA and seal the closure mechanically with TEFLON resin or asbestos fillings.
Section 8: Exposure Controls/Personal Protection	
Engineering Controls:	Not required.
Personal Protection:	The usual precautionary measures should be adhered to in handling the chemical. Keep away from foodstuffs, beverages and food. Instantly remove and soiled impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes. Avoid contact with the eyes and skin. Maintain and ergonomically appropriate working environments.
Breathing equipment:	Use breathing protection with high concentrations.
Protection of hands:	Check protective gloves prior to each use for their proper condition. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Material of gloves:	Impervious gloves.
Penetration time of glove material:	Not determined.
Eye protection:	Safety glasses.
Body protection:	Protective work clothing.
Section 9: Physical and Chemical Properties	
Physical state and appearance:	Liquid.
Odor:	Slightly ammoniacal.
Taste:	Not Applicable.
Molecular Weight:	Not Applicable.
Color:	Colorless to yellow.

pH (1% soln/water):	Not Applicable.
Boiling Point:	104 °C
Melting Point:	Not Applicable.
Critical Temperature:	Not Applicable.
Specific Gravity:	1.027 25 °C/4 °C
Vapor Pressure:	< 0.01 mmHg Literature
Vapor Density:	Not Applicable.
Volatility:	Not Applicable.
Odor Threshold:	No test data available.
Partition coefficient, noctanol/water (log Pow):	-0.015
Dynamic Viscosity:	240 cps @ 25 °C
Solubility:	100 % in water, Completely miscible in all proportions.
Section 10: Stability and Reactivity Data	
Stability:	not stable under long exposure to high temperature. If uncovered in open air, the product will absorb water and CO ₂ .
Instability Temperature:	as stipulated in Section 7.
Hazardous decomposition or byproducts:	none.
Section 11: Toxicological Information	
<p>TIPA belongs to organic alkali weak corrosive chemicals. Repeated and prolonged exposure may result in certain skin inflammation. Ingestion maybe have toxic results. Eye, nose, skin contact with vapor may irritate. Prolonged contact will affect the eyesight.</p>	
Section 12: Ecological Information	
<p>No official report is available. However, this product hasn't apparent affection on the environment if the density is quite low. Otherwise, it will produce certain adverse influence on the water source, land, and aquatic organisms.</p>	
Section 13: Disposal Considerations	
Waste Disposal:	TIPA and the packing materials can be recycled. Those failing to be recycled can be dealt with according to Section 6.
Section 14: Transport Information	
DOT Classification:	Not Applicable.
Identification:	Not Applicable.
Special Provisions for Transport:	None.



Contact: sales@camachem.com

Section 15: Other Regulatory Information

For TIPA 85%, it belongs to organic weak-corrosive chemicals. The products should not be labeled with danger mark.

Section 16: Other Information

References:	Not Applicable.
Other Special Considerations:	None.
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