

Safety Data Sheet

TDA 90% Vicinal

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1. Identification

Product identifier used on the label

TDA 90% Vicinal

Recommended use of the chemical and restriction on use

Recommended use*: Chemical, Raw material

Recommended use*: Intermediate

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

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MÉXICO

Telephone: +52 55 5325 2600

Emergency telephone number

SETIQ: 1800-00-214-(Rep. Mexicana) or 55-59-15-88 (CDMX)
Telephone: +1-800-849-5204 or +1-833-229-1000

Other means of identification

Molecular formula: C7 H10 N2
Chemical family: Contains: amine

2. Hazards Identification

According to Regulation NOM-018-STPS-2015

Classification of the product

Aquatic Chronic	2	Hazardous to the aquatic environment - chronic
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Acute Tox.	3 (dermal)	Acute toxicity
Acute Tox.	3 (oral)	Acute toxicity

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Acute Tox.	4 (Inhalation - vapour)	Acute toxicity
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Skin Sens.	1	Skin sensitization
Muta.	2	Germ cell mutagenicity
Carc.	1B	Carcinogenicity
Repr.	2 (fertility)	Reproductive toxicity
STOT RE	2	Specific target organ toxicity — repeated exposure

Label elements

Pictogram:



Signal Word:

Danger

Hazard Statement:

H319	Causes serious eye irritation.
H311	Toxic in contact with skin.
H332	Harmful if inhaled.
H301	Toxic if swallowed.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility.
H350	May cause cancer.
H341	Suspected of causing genetic defects.
H373	May cause damage to organs (Liver, Testes) through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P271	Use only outdoors or in a well-ventilated area.
P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P260	Do not breathe dust/gas/mist/vapours.
P202	Do not handle until all safety precautions have been read and understood.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P361	Take off immediately all contaminated clothing.
P301 + P330	IF SWALLOWED: rinse mouth.
P391	Collect spillage.

Precautionary Statements (Storage):

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P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation NOM-018-STPS-2015

<u>CAS Number</u>	<u>Weight %</u>	<u>Chemical name</u>
496-72-0	>= 50.0 - < 75.0%	4-methyl-o-phenylene diamine
2687-25-4	>= 25.0 - < 50.0%	toluene-2,3-diamine
25376-45-8	>= 3.0 - < 5.0%	1,3-Benzenediamine, ar-methyl-
95-80-7	>= 1.0 - < 3.0%	4-methyl-m-phenylene diamine
823-40-5	>= 1.0 - < 3.0%	2-methyl-m-phenylene diamine
26915-12-8	>= 0.3 - < 1.0%	Benzenamine, ar-methyl-

4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

If on skin:

Immediately wash thoroughly with soap and water, seek medical attention.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Eye irritation, allergic symptoms

Hazards: Symptoms can appear later.

Indication of any immediate medical attention and special treatment needed

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Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide, carbon dioxide, nitrogen oxides
The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Breathing protection required. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not empty into drains. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

For small amounts: Vacuum up spilled product. Dispose of contaminated material as prescribed.
For large amounts: Vacuum up spilled product. Dispose of contaminated material as prescribed.
Avoid raising dust.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Refill and handle product only in closed system.

Protection against fire and explosion:
No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds. Segregate from acids.

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Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate), glass, Galvanized carbon steel (Zinc), Stainless steel 1.4301 (V2), Stainless steel 1.4401, Stove-lacquer Valspar HXC0001

Unsuitable materials for containers: Low density polyethylene (LDPE), Paper/Fibreboard, High density polyethylene (HDPE)

Further information on storage conditions: Keep container tightly closed.

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of alkaline compounds such as ammonia, amines (e.g. EN 14387 Type K).

Hand protection:

Chemical resistant protective gloves (EN 374), Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374); polyvinylchloride (PVC) - 0.7 mm coating thickness, Plastic gloves, Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:

safety shoes (e.g. according to EN 20346), chemical protection overall (f.e. according to EN 13982) if dust is formed.

General safety and hygiene measures:

Avoid contact with skin. Avoid contact with eyes. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and Chemical Properties

Form:	semi-solid
Odour:	ammonia-like, faint odour
Odour threshold:	not applicable
Colour:	violet
pH value:	> 7
Melting point:	< 100 °C (760 mmHg)
Boiling point:	< 285 °C (760 mmHg)
Sublimation point:	No applicable information available.
Flash point:	> 110 °C
Flammability:	not flammable
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.

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Autoignition:	> 360 °C
Vapour pressure:	2.23 mmHg (100 °C)
Density:	approx. 1.1 g/cm ³ (25 °C)
Relative density:	No applicable information available.
Bulk density:	8.64 lb/USg (20 °C)
Vapour density:	not applicable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Thermal decomposition:	No decomposition if correctly stored and handled.
Viscosity, dynamic:	5 mPa.s (25 °C)
Viscosity, kinematic:	No applicable information available.
Solubility in water:	(20 °C) of low solubility
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	No applicable information available.
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No applicable information available.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Evolution of heat under influence of acids.

Conditions to avoid

Temperature: < 0 degrees Celsius

Incompatible materials

acids

Hazardous decomposition products

Decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No decomposition if correctly stored and handled.

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11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of moderate toxicity after short-term inhalation. Of high toxicity after single ingestion. Of pronounced toxicity after short-term skin contact.

Oral

Type of value: LD50
Species: rat
Value: 150 mg/kg

Inhalation

Type of value: LC50
Species: rat
Value: 181 ppm
Exposure time: 4 h

Dermal

Type of value: LD50
Species: rat
Value: 463 mg/kg

Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. Not expected to be a skin irritant.

Eye

Result: Irritant.
Method: BASF-Test

Sensitization

Assessment of sensitization: Sensitization after skin contact possible.

sensitizing effect in animal tests

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated exposure may affect certain organs.

Genetic toxicity

Assessment of mutagenicity: Mutagenic properties can not be excluded on the basis of experimental data.

Carcinogenicity

Assessment of carcinogenicity: The substance caused cancer in animal studies.

Information on: 1,3-Benzenediamine, ar-methyl-

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Assessment of carcinogenicity: The substance caused cancer in animal studies.

Information on: 4-methyl-m-phenylene diamine

Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).

Information on: Benzenamine, ar-methyl-

Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies suggest a fertility impairing effect.

Other Information

Carcinogenic in animal tests after oral administration. Skin resorption hazard.

Symptoms of Exposure

Eye irritation, allergic symptoms

Medical conditions aggravated by overexposure

Individuals with allergic history or pre-existing dermatitis should use extra precautions when handling this product. The substance may cause sensitization of the skin in particularly sensitive individuals.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from the properties of the individual components.

Aquatic invertebrates

EC50 (48 h) 1.73 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Literature data. Nominal concentration.

Aquatic plants

EC50 (72 h) 0.383 mg/l (growth rate), *Desmodosmus subspicatus* (OECD Guideline 201, static)

Literature data. The statement of the toxic effect relates to the analytically determined concentration.

Toxicity to fish

Information on: 1,3-Benzenediamine, ar-methyl-

*LC50 (96 h) 393 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)*

LC50 (96 h) 0.414 mg/l (OECD Guideline 203, Flow through.)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration.

LC50 (96 h) 283 mg/l (OECD Guideline 203, semistatic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Benzenamine, ar-methyl-

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LC50 (14 d) 10.7 mg/l, *Poecilia reticulata* (semistatic)
The details of the toxic effect relate to the nominal concentration.
LC50 (96 h) 115 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)
The statement of the toxic effect relates to the analytically determined concentration.
LC50 (96 h) 149 mg/l, *Pimephales promelas* (OECD 203; ISO 7346; 84/449/EEC, C.1, Flow through.)
The statement of the toxic effect relates to the analytically determined concentration.

Aquatic invertebrates

Information on: 1,3-Benzenediamine, ar-methyl-
EC50 (48 h) 1.6 mg/l, *Daphnia magna* (semistatic)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Benzenamine, ar-methyl-
EC50 (48 h) 0.12 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, semistatic)
The statement of the toxic effect relates to the analytically determined concentration.

Aquatic plants

Information on: 1,3-Benzenediamine, ar-methyl-
EC50 (72 h) 39 mg/l (growth rate), *Desmodosmus subspicatus* (OECD Guideline 201, static)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: Benzenamine, ar-methyl-
EC50 (72 h) 24 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201)

Chronic toxicity to fish

Information on: 1,3-Benzenediamine, ar-methyl-
No observed effect concentration (10 d) 3.16 mg/l, *Brachydanio rerio* (OECD Guideline 212, Flow through.)
The details of the toxic effect relate to the nominal concentration.

Information on: Benzenamine, ar-methyl-
No observed effect concentration 0.6 mg/l, *Oryzias latipes* (OECD Guideline draft)

Chronic toxicity to aquatic invertebrates

Information on: 1,3-Benzenediamine, ar-methyl-
No observed effect concentration (21 d) 0.282 mg/l, *Daphnia magna* (OECD Guideline 211, semistatic)
The statement of the toxic effect relates to the analytically determined concentration.
No observed effect concentration (28 d) 125 mg/kg sediment dw, *Chironomus riparius* (OECD 218, static)

Information on: Benzenamine, ar-methyl-
No observed effect concentration (21 d) 0.011 mg/l, *Daphnia magna* (OECD Guideline 211)

Microorganisms/Effect on activated sludge

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Toxicity to microorganisms

*Information on: 1,3-Benzenediamine, ar-methyl-
DIN EN ISO 8192-OECD 209-88/302/EEC, P. C aquatic
activated sludge/EC50 (3 h): > 100 mg/l
Nominal concentration.*

*Information on: Benzenamine, ar-methyl-
OECD Guideline 209 aquatic
activated sludge of a predominantly domestic sewage/EC20 (180 min): < 100 mg/l
The details of the toxic effect relate to the nominal concentration.*

Persistence and degradability

Elimination information

0 % (28 d) (aerobic) Poorly biodegradable.

Additional information

Adsorbable organically-bound halogen (AOX):
This product contains no organically-bound halogen.

13. Disposal considerations

Waste disposal of substance:

Incinerate in suitable incineration plant, observing local authority regulations.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

Land transport

TDG

Hazard class:	6.1
Packing group:	III
ID number:	UN 2811
Hazard label:	6.1, EHSM
Proper shipping name:	TOXIC SOLID, ORGANIC, N.O.S. (contains TOLUENEDIAMINE)

Sea transport

IMDG

Hazard class:	6.1
Packing group:	III
ID number:	UN 2811
Hazard label:	6.1, EHSM
Marine pollutant:	YES
Proper shipping name:	TOXIC SOLID, ORGANIC, N.O.S. (contains TOLUENEDIAMINE)

Air transport

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IATA/ICAO

Hazard class: 6.1
Packing group: III
ID number: UN 2811
Hazard label: 6.1
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (contains TOLUENEDIAMINE)

15. Regulatory Information

Federal Regulations

Not applicable

NFPA Hazard codes:

Health: 3 Fire: 1 Reactivity: 1 Special:

HMIS III rating

Health: 3 α Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2018/10/11

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This information is considered accurate but is not exhaustive and shall only be used as a guideline based on current knowledge of the chemical substance or mixture. Safety precautions suitable for the product must be applied.

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