

Chemical Safety Data Sheet MSDS / SDS

m-anisidine SDS

Revision Date:2024-04-25 Revision Number:1

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**Product identifier**

Product name: m-anisidine
CAS: 536-90-3

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.
Uses advised against: none

Company Identification

Company: Chemicalbook.in
Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090
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SECTION 2: Hazards identification**Classification of the substance or mixture**

Acute toxicity - Category 4, Oral
Skin irritation, Category 2

Eye irritation, Category 2
Specific target organ toxicity - single exposure, Category 3
Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1
Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Warning

Hazard statement(s)

H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.

Response

P301+P317 IF SWALLOWED: Get medical help.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water/...
P321 Specific treatment (see ... on this label).
P332+P317 If skin irritation occurs: Get medical help.
P362+P364 Take off contaminated clothing and wash it before reuse.
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.
P319 Get medical help if you feel unwell.
P391 Collect spillage.

Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

Substance

Chemical name:	m-anisidine
Common names and synonyms:	m-anisidine
CAS number:	536-90-3
EC number:	208-651-4
Concentration:	100%

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Fresh air, rest. Refer for medical attention.

Following skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Do NOT induce vomiting. Give one or two glasses of water to drink. Refer for medical attention .

Most important symptoms/effects, acute and delayed

SYMPTOMS: Symptoms of exposure to this compound may include irritation of the skin, eyes, mucous membranes and upper respiratory tract. Other symptoms may include headaches and cyanosis. It can cause dizziness and an increase in red blood cell Heinz bodies. Vertigo and an increase in sulfhemoglobin may occur. Drowsiness has been reported. The onset of symptoms may be delayed 2 to 4 hours or longer. Symptoms of exposure to a related compound include methemoglobinemia, skin sensitization, corneal damage, and liver and kidney damage. **ACUTE/CHRONIC HAZARDS:** This compound is very toxic by ingestion, inhalation and skin contact. It is an irritant of the skin, eyes, mucous membranes and upper respiratory tract. It is readily absorbed through the skin. When heated to decomposition it emits toxic fumes of carbon monoxide, carbon dioxide and nitrogen oxides. (NTP, 1992)

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

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Aniline and related compounds

SECTION 5: Firefighting measures

Suitable extinguishing media

Use dry chemical, carbon dioxide, or alcohol foam extinguishers. Vapors are heavier than air and will collect in low areas. Vapors may travel long distances to ignition sources and flashback. Vapors in confined areas may explode when exposed to fire. Storage containers and parts of containers may rocket great distances, in many directions. If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated waters. Notify local health and fire officials and pollution control agencies. From a secure, explosion-proof location, use water spray to cool exposed containers. If cooling streams are ineffective (venting sound increases in volume and pitch, tank discolors or shows any signs of deforming), withdraw immediately to a secure position ... The only respirators recommended for fire fighting are self-contained breathing apparatuses that have full facepieces and are operated in a pressure-demand or other positive-pressure mode. Anisidines

Specific hazards arising from the chemical

This chemical is probably combustible. (NTP, 1992)

Special protective actions for fire-fighters

Use water spray, dry powder, foam, carbon dioxide.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable containers as far as possible.

Environmental precautions

Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable containers as far as possible.

Methods and materials for containment and cleaning up

Spill handling: Evacuate persons not wearing protective equipment from area of spill or leak until clean-up is complete. Remove all ignition sources. Collect powdered material in the most convenient and safe manner and deposit in sealed containers. Ventilate area of spill or leak. Cover with sand and soda ash (9:1). After mixing, collect material in the most convenient and safe manner and deposit in sealed containers. If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated waters. It may be necessary to contain and dispose of this chemical as a hazardous waste. Contact your Department of Environmental Protection or your regional office of the federal EPA for specific recommendations. Anisidines

SECTION 7: Handling and storage

Precautions for safe handling

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Well closed. Separated from food and feedstuffs and strong oxidants. Store in tightly closed containers in a cool, dark, well-

ventilated area. Protect against sunlight and strong oxidizers. Metal containers involving the transfer of this chemical should be grounded and bonded. Where possible, automatically pump liquid from drums or other storage containers to process containers. Drums must be equipped with self-closing valves, pressure vacuum bungs, and flame arresters. Use only non-sparking tools and equipment, especially when opening and closing containers of this chemical. Sources of ignition, such as smoking and open flames, are prohibited where this chemical is used, handled, or stored in a manner that could create a potential fire or explosion hazard. A regulated, marked area should be established where this chemical is handled, used, or stored ... Anisidines

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

Component	m-anisidine			
CAS No.	536-90-3			
	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	0,1	0,5	?	?
Austria	0,1	0,5	0,2	1
	Remarks			

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

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

Eye/face protection

Wear face shield or eye protection in combination with breathing protection.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use ventilation, local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	PHYSICAL DESCRIPTION: Pale yellow oily liquid or dark red liquid. (NTP, 1992)
Colour:	Pale yellow, oily liquid
Odour:	no data available
Melting point/freezing point:	250°C(dec.)(lit.)
Boiling point or initial boiling point and boiling range:	251°C(lit.)
Flammability:	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	126°C(lit.)
Auto-ignition temperature:	515 deg C
Decomposition temperature:	no data available
pH:	no data available
Kinematic viscosity:	no data available
Solubility:	less than 1 mg/mL at 66° F (NTP, 1992)
Partition coefficient n-octanol/water:	log Kow = 0.93

Vapour pressure:	15.4 mm Hg at 75° F ; 21.8 mm Hg at 115° F; 32 mm Hg at 144° F (NTP, 1992)
Density and/or relative density:	1.096
Relative vapour density:	no data available
Particle characteristics:	no data available

SECTION 10: Stability and reactivity

Reactivity

On combustion, forms toxic fumes including nitrogen oxides. Reacts with strong oxidants. This generates fire hazard.

Chemical stability

no data available

Possibility of hazardous reactions

Combustible M-ANISIDINE is incompatible with strong oxidizers. It is also incompatible with acids, acid chlorides, acid anhydrides and chloroformates. (NTP, 1992)

Conditions to avoid

no data available

Incompatible materials

Materials to avoid: acids, acid chlorides, acid anhydrides, chloroformates, strong oxidizing agents

Hazardous decomposition products

Poisonous gases including nitrogen oxides are produced in fire. Anisidines

SECTION 11: Toxicological information

Acute toxicity

Oral: LD50 Rat male and female oral 526 mg/kg

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The substance may cause effects on the blood. This may result in the formation of methaemoglobin. Medical observation is indicated. The effects may be delayed. See Notes.

STOT-repeated exposure

no data available

Aspiration hazard

A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: EC50; Species: Daphnia magna (water flea); Conditions: freshwater, static; Concentration: 110 µg/L for 48 hr; Effect: intoxication, immobilization /formulated product

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

AEROBIC: m-Anisidine, present at 100 mg/L, reached 0% of its theoretical BOD in 4 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(1). Half-lives of 2 to 3 weeks in non-adapted inoculum and <2 weeks in adapted inoculum during an adapted, semistatic OECD biodegradability test and dynamic Pitter test(2). m-Anisidine degraded 37% in river water obtained from Mino River, Japan and 17% in seawater obtained from Akashi Beach, Japan after a 3-day incubation period using the Cultivation Method screening test(3-4). m-Anisidine did not degrade using the Modified OECD test, but degraded approximately 60% after 28 days using the same procedure with a modified activated sludge (1.5 mL/L) inoculum and a test sample concn of 60 mg/L. When the inoculum concn was raised to 10 mL/L m-anisidine degraded completely(5).

Bioaccumulative potential

An estimated BCF of 3.2 was calculated for m-anisidine(SRC), using a log Kow of 0.93(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

Mobility in soil

The Koc of m-anisidine is estimated as 30(SRC), using a log Kow of 0.93(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that m-anisidine is expected to have very high mobility in soil. The pKa of m-anisidine is 4.24(4), indicating that this compound will partially exist in the cation form in the environment and cations generally adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(5).

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN2431 (For reference only, please check.)

IMDG: UN2431 (For reference only, please check.)

IATA: UN2431 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: ANISIDINES (For reference only, please check.)

IMDG: ANISIDINES (For reference only, please check.)

IATA: ANISIDINES (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

Packing group, if applicable

ADR/RID: III (For reference only, please check.)

IMDG: III (For reference only, please check.)

IATA: III (For reference only, please check.)

Environmental hazards

ADR/RID: Yes

IMDG: Yes

IATA: Yes

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Listed.

Korea Existing Chemicals List (KECL)

Not Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:
<http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Other Information

Depending on the degree of exposure, periodic medical examination is suggested. Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available. Health effects of exposure to the substance have not been investigated adequately. See ICSCs 0970 and 0971.

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any