

## Chemical Safety Data Sheet MSDS / SDS

## 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: Anisidine  
CAS: 29191-52-4

**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  
Telephone: +91 9550333722

**SECTION 2: Hazards identification****Classification of the substance or mixture**

no data available

**GHS label elements, including precautionary statements**

Signal word                    no data available

**Hazard statement(s)**

no data available

**Precautionary statement(s)****Prevention**

no data available

**Response**

no data available

**Storage**

no data available

**Disposal**

no data available

**Other hazards which do not result in classification**

no data available

**SECTION 3: Composition/information on ingredients****Substance**

Chemical name:            Anisidine

Common names and  
synonyms:                Anisidine

CAS number:              29191-52-4

EC number:                249-496-2

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 and then wash skin with water and soap.

#### Following eye contact

Rinse with plenty of water (remove contact lenses if easily possible).

#### Following ingestion

Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention .

### Most important symptoms/effects, acute and delayed

Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact Symptoms: Headache, dizziness; cyanosis; red blood cell Heinz bodies Target Organs: Blood, kidneys, liver, cardiovascular system, central nervous system (NIOSH, 2016)

### 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 flammable. (NTP, 1992)

#### **Special protective actions for fire-fighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **SECTION 6: Accidental release measures**

#### **Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

#### **Environmental precautions**

Personal protection: filter respirator for organic gases and particulates adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Then store and dispose of according to local regulations.

#### **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 after clean-up is complete. 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**

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

Separated from strong oxidants, strong bases, acids, chloroformates and food and feedstuffs. Provision to contain effluent from fire extinguishing. Store in an area without drain or sewer access. 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	Anisidine
CAS No.	29191-52-4
	Recommended Exposure Limit: 10-hour Time-Weighted Average: 0.5 mg/cu m, skin.

#### 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 tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

##### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived

from it.

### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

### Thermal hazards

no data available

## SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	PHYSICAL DESCRIPTION: Brown crystals or dark brown solid. Characteristic amine odor. (NTP, 1992)
Colour:	White solid
Odour:	Amine-like odor
Melting point/freezing point:	5°C
Boiling point or initial boiling point and boiling range:	469° F at 760 mm Hg (NTP, 1992)
Flammability:	Combustible Solid
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	41° F (NTP, 1992)
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 68° F (NTP, 1992)
Partition coefficient n-octanol/water:	log Kow = 0.95
Vapour pressure:	less than 0.1 mm Hg at 68° F (NTP, 1992)
Density and/or relative density:	1.071 at 135° F (NTP, 1992)
Relative vapour density:	4.25 (NTP, 1992) (Relative to Air)
Particle characteristics:	no data available

## SECTION 10: Stability and reactivity

### Reactivity

Decomposes on burning. This produces toxic fumes including nitrogen oxides. The solution in water is a weak base. Reacts with acids, chloroformates and strong oxidants. Attacks some coatings, some forms of plastic and rubber.

### Chemical stability

no data available

### Possibility of hazardous reactions

Combustible. As a result of flow, agitation, etc., electrostatic charges can be generated. Dust explosion possible if in powder or granular form, mixed with air. P-ANISIDINE may be sensitive to heat, light and moisture. Reacts with acids, acid chlorides, acid anhydrides, chloroformates and strong oxidizing agents. Incompatible with alkaline materials. Incompatible with aldehydes, ketones and nitrates. (NTP, 1992)

### Conditions to avoid

no data available

### Incompatible materials

Incompatible with strong oxidizers, with risk of fire or explosions. Attacks some coatings and some forms of plastic and rubber.

Anisidines

**Hazardous decomposition products**

When heated to decomposition it emits toxic fumes of nitrogen oxides.

**SECTION 11: Toxicological information**

**Acute toxicity**

Oral: LD50 Rat oral 1400 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 are available in humans. Inadequate evidence of carcinogenicity in animals. OVERALL EVALUATION: Group 3: The agent is not classifiable as to its carcinogenicity to humans.

**Reproductive toxicity**

no data available



**STOT-single exposure**

no data available

**STOT-repeated exposure**

no data available

**Aspiration hazard**

no data available

**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: 180 ug/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: p-Anisidine, present at 100 mg/L, reached 65.3% of its theoretical BOD in 2 weeks using an activated sludge inoculum at 30 mg/L in the Japanese MITI test(1). p-Anisidine degraded 82% in river water obtained from Mino River, Japan, and 2% in seawater obtained from Akashi Beach, Japan during a Cultivation Method screening test(2). p-Anisidine did not degrade during a Modified OECD test, but degraded completely 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(3). Half-lives of <3 weeks in non-adapted inoculum and <2 weeks in adapted inoculum were obtained during an adapted, semistatic OECD biogradability test and dynamic Pitter test(4). p-Anisidine, present at 25 ug/L and inoculated with a mixed culture of soil microorganisms in an aqueous mineral salts medium, underwent complete degradation in 64 days as indicated by a total loss of UV absorbency(5). Partially purified enzymes of the soil fungus Geotrichum candidum transformed the anisidines into colored polyaromatic hydrocarbons(6). Pure cultures of the bacterium Escherichia coli metabolized p-anisidine in the presence of nitrate, as indicated by a color change occurring within 24 hours of incubation; a disappearance rate of 0.10/hr was reported(7).

**Bioaccumulative potential**

An estimated BCF of 3.2 was calculated for p-anisidine(SRC), using a log Kow of 0.95(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 p-anisidine is estimated as 45(SRC), using a log Kow of 0.95(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that p-anisidine is expected to have very high mobility in soil. The pKa of p-anisidine is 5.36(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: no data available

IMDG: no data available

IATA: no data available

#### **UN Proper Shipping Name**

ADR/RID: no data available

IMDG: no data available  
IATA: no data available

**Transport hazard class(es)**

ADR/RID: no data available  
IMDG: no data available  
IATA: no data available

**Packing group, if applicable**

ADR/RID: no data available  
IMDG: no data available  
IATA: no data available

**Environmental hazards**

ADR/RID: No  
IMDG: No  
IATA: No

**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**

Not Listed.

**China Catalog of Hazardous chemicals 2015**

Not Listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Listed.

**(PICCS)**

Not Listed.

**Vietnam National Chemical Inventory**

Listed.

**IECSC)**

Not Listed.

**Korea Existing Chemicals List (KECL)**

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](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/>

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