

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** Aniline

**Other means of identification**

**Product No.:** 9110, 3584

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

Company Name: Avantor Performance Materials, Inc.  
Address: 3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034

Telephone: Customer Service: 855-282-6867

Fax:  
Contact Person: Environmental Health & Safety  
e-mail: info@avantormaterials.com

**Emergency telephone number:**

24 Hour Emergency: 908-859-2151

Chemtrec: 800-424-9300

## 2. Hazard(s) identification

**Hazard classification**

**Physical hazards**

Flammable liquids Category 4

**Health hazards**

Acute toxicity (Oral) Category 3

Acute toxicity (Dermal) Category 3

Acute toxicity (Inhalation - dust and mist) Category 3

Serious eye damage/eye irritation Category 2A

Skin sensitizer Category 1B

Germ cell mutagenicity Category 2

Carcinogenicity Category 2

Specific target organ toxicity - repeated exposure Category 1

**Environmental hazards**

Acute hazards to the aquatic environment Category 1

Chronic hazards to the aquatic environment Category 1

**Label elements**

**Hazard symbol:**



**Signal word:** Danger

**Hazard statement:** Combustible liquid.  
Toxic if swallowed, in contact with skin or if inhaled.  
Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
Suspected of causing cancer.  
Causes damage to organs through prolonged or repeated exposure.  
Very toxic to aquatic life with long lasting effects.

**Precautionary statement**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF exposed or concerned: Get medical advice/attention. In case of fire: Use water spray, foam, dry powder or carbon dioxide for extinction. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Specific treatment (see this label). Collect spillage.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

**Disposal:** 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 GHS classification:** None.

### 3. Composition/information on ingredients

**Substances**

Chemical identity	Common name and synonyms	CAS number	Content in percent (%)*
ANILINE		62-53-3	99 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### 4. First-aid measures

<b>General information:</b>	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
<b>Ingestion:</b>	Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Inhalation:</b>	Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
<b>Skin contact:</b>	Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. Get medical attention immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

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

<b>Symptoms:</b>	May irritate eyes. May cause allergic skin reaction. This material may produce methemoglobin which, in sufficient concentration, causes cyanosis, a blue-gray discoloration of the skin and lips caused by a reduced ability of the blood to carry oxygen.
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##### Indication of immediate medical attention and special treatment needed

<b>Treatment:</b>	Treat symptomatically. Symptoms may be delayed.
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#### 5. Fire-fighting measures

<b>General fire hazards:</b>	Combustible liquid.
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##### Suitable (and unsuitable) extinguishing media

<b>Suitable extinguishing media:</b>	Water spray, foam, dry powder or carbon dioxide.
<b>Unsuitable extinguishing media:</b>	Avoid water in straight hose stream; will scatter and spread fire.

<b>Specific hazards arising from the chemical:</b>	Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode.
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##### Special protective equipment and precautions for firefighters

<b>Special fire fighting procedures:</b>	Use water spray to keep fire-exposed containers cool. Move containers from fire area if you can do so without risk.
<b>Special protective equipment for fire-fighters:</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

#### 6. Accidental release measures

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

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. See Section 8 of the MSDS for Personal Protective Equipment.

**Methods and material for containment and cleaning up:**

Eliminate all ignition sources if safe to do so. Dike far ahead of larger spills for later disposal. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

**Notification Procedures:**

Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

**Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Avoid release to the environment. Do not contaminate water sources or sewer.

## 7. Handling and storage

**Precautions for safe handling:**

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling.

**Conditions for safe storage, including any incompatibilities:**

Keep away from food, drink and animal feeding stuffs. Store in tightly closed original container in a dry, cool and well-ventilated place.

## 8. Exposure controls/personal protection

**Control parameters**
**Occupational exposure limits**

Chemical identity	Type	Exposure Limit values	Source
ANILINE	TWA	2 ppm	US. ACGIH Threshold Limit Values (2011)
	PEL	5 ppm 19 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	2 ppm 8 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

**Biological limit values**

Chemical identity	Exposure Limit values	Source
ANILINE (p-Aminophenol, with hydrolysis: Sampling time: End of shift.)	50 mg/l (Urine)	ACGIH BEL (2011)

**Appropriate engineering controls**

No data available.

**Individual protection measures, such as personal protective equipment**
**General information:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.
<b>Skin protection</b>	
<b>Hand protection:</b>	Chemical resistant gloves
<b>Other:</b>	Wear suitable protective clothing and gloves.
<b>Respiratory protection:</b>	In case of inadequate ventilation use suitable respirator.
<b>Hygiene measures:</b>	Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	Liquid
<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Mild, Amines.
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	8.1 0.2 molar aqueous solution
<b>Melting point/freezing point:</b>	-6 °C
<b>Initial boiling point and boiling range:</b>	184 °C
<b>Flash Point:</b>	70 °C (Closed Cup)
<b>Evaporation rate:</b>	< 1 (butyl acetate=1)
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	1.3 %(V)
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	0.6 kPa
<b>Vapor density:</b>	3.3 AIR=1
<b>Relative density:</b>	1.02 (20 °C)
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	35 g/l (20 °C)
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	0.90
<b>Auto-ignition temperature:</b>	615 °C
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

### Other information

<b>Molecular weight:</b>	93.13 g/mol (C <sub>6</sub> H <sub>7</sub> N)
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## 10. Stability and reactivity

<b>Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability:</b>	Material is stable under normal conditions.

<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, sparks, flames. Contact with incompatible materials.
<b>Incompatible materials:</b>	Strong oxidizing agents. Strong acids. Alkalies. Iron. Zinc. Aluminum.
<b>Hazardous decomposition products:</b>	Carbon monoxide Carbon dioxide Nitrogen Oxides

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	Toxic if swallowed.
<b>Inhalation:</b>	Toxic by inhalation. May cause irritation to the respiratory system.
<b>Skin contact:</b>	Toxic in contact with skin. May cause an allergic skin reaction. May cause irritation.
<b>Eye contact:</b>	Causes serious eye irritation.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral</b>	
<b>Product:</b>	LD 50 (Rat): 250 mg/kg
<b>Dermal</b>	
<b>Product:</b>	LD 50 (Rat): 1,400 mg/kg
<b>Inhalation</b>	
<b>Product:</b>	LC 50 (Mouse, 7 h): 175 mg/l
<b>Repeated dose toxicity</b>	
<b>Product:</b>	No data available.

<b>Skin corrosion/irritation</b>	
<b>Product:</b>	May cause skin irritation.

<b>Serious eye damage/eye irritation</b>	
<b>Product:</b>	Causes serious eye irritation.

<b>Respiratory or skin sensitization</b>	
<b>Product:</b>	May cause allergic skin reaction.

<b>Carcinogenicity</b>	
<b>Product:</b>	Suspected of causing cancer.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**  
No carcinogenic components identified

## Germ cell mutagenicity

### In vitro

**Product:** Suspected of causing genetic defects.

### In vivo

**Product:** Suspected of causing genetic defects.

## Reproductive toxicity

**Product:** No data available.

## Specific target organ toxicity - single exposure

**Product:** No data available.

## Specific target organ toxicity - repeated exposure

**Product:** Blood, hematopoietic system - Causes damage to organs through prolonged or repeated exposure.

## Aspiration hazard

**Product:** Not classified

### Other effects:

This material may produce methemoglobin which, in sufficient concentration, causes cyanosis, a blue-gray discoloration of the skin and lips caused by a reduced ability of the blood to carry oxygen.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Specified substance(s):

ANILINE

LC 50 (Bluegill (*Lepomis macrochirus*), 96 h): 40.7 - 59.1 mg/l Mortality  
LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 59.42 - 79.26 mg/l Mortality  
LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 96 h): 20.4 - 23.7 mg/l Mortality

##### Aquatic invertebrates

**Product:** No data available.

##### Specified substance(s):

ANILINE

EC 50 (Water flea (*Daphnia magna*), 48 h): 0.13 - 0.21 mg/l Intoxication  
LC 50 (Water flea (*Daphnia magna*), 48 h): 0.35 mg/l Mortality

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic invertebrates

**Product:** No data available.

##### Toxicity to Aquatic Plants

**Product:** No data available.

##### Specified substance(s):

ANILINE

LC 50 (Green algae (*Chlorella vulgaris*)): > 183.9 mg/l Mortality

### Persistence and degradability

**Biodegradation**

**Product:** The product is expected to be biodegradable.

**BOD/COD ratio**

**Product:** No data available.

**Bioaccumulative potential**
**Bioconcentration factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition coefficient n-octanol / water (log Kow)**

**Product:** Log Kow: 0.90

**Mobility in soil:**

The product is water soluble and may spread in water systems.

**Other adverse effects:**

Very toxic to aquatic life with long lasting effects.

**13. Disposal considerations**
**Disposal instructions:**

Discharge, treatment, or disposal may be subject to national, state, or local laws. 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. Do not allow to enter drains, sewers or watercourses.

**Contaminated packaging:**

Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport information**
**DOT**

UN number:	UN 1547
UN proper shipping name:	Aniline
Transport hazard class(es)	
Class(es):	6.1
Label(s):	6.1
Packing group:	II
Marine Pollutant:	No

**IMDG**

UN number:	UN 1547
UN proper shipping name:	ANILINE
Transport hazard class(es)	
Class(es):	6.1
Label(s):	6.1
EmS No.:	F-A, S-A
Packing group:	II
Marine Pollutant:	No

**IATA**

UN number:	UN 1547
Proper Shipping Name:	Aniline
Transport hazard class(es):	
Class(es):	6.1
Label(s):	6.1
Marine Pollutant:	No
Packing group:	II



## 15. Regulatory information

### US federal regulations

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

##### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

#### CERCLA Hazardous Substance List (40 CFR 302.4):

ANILINE Reportable quantity: 5000 lbs.

#### Superfund amendments and reauthorization act of 1986 (SARA)

##### Hazard categories

☒ Acute (Immediate) ☒ Chronic (Delayed) ☒ Fire ☐ Reactive ☐ Pressure Generating

#### SARA 302 Extremely hazardous substance

Chemical identity	RQ	Threshold Planning Quantity
ANILINE	5000 lbs.	1000 lbs.

#### SARA 304 Emergency release notification

Chemical identity	RQ
ANILINE	5000 lbs.

#### SARA 311/312 Hazardous chemical

Chemical identity	Threshold Planning Quantity
ANILINE	500lbs

#### SARA 313 (TRI reporting)

Chemical identity	Reporting threshold for other users	Reporting threshold for manufacturing and processing
ANILINE	10000 lbs	25000 lbs.

#### Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

ANILINE Reportable quantity: 5000 lbs.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

### US state regulations

#### US. California Proposition 65

ANILINE Carcinogenic.

#### US. New Jersey Worker and Community Right-to-Know Act

ANILINE Listed

#### US. Massachusetts RTK - Substance List

ANILINE Listed

#### US. Pennsylvania RTK - Hazardous Substances

ANILINE Listed

#### US. Rhode Island RTK

ANILINE Listed

### Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EU EINECS List:	On or in compliance with the inventory
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

### 16. Other information, including date of preparation or last revision

### NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

<b>Issue date:</b>	04-10-2014
<b>Revision date:</b>	No data available.
<b>Version #:</b>	1.0
<b>Further information:</b>	No data available.

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