SAFETY DATA SHEET

Creation Date 16-March-2010 **Revision Date** 19-December-2025 **Revision Number** 8

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

1. Identification

Product Name **Aniline**

Cat No. : **AC423420000; AC423420010; AC423420025; AC423420050; AC423425000**

CAS-No 62-53-3
Synonyms Aminobenzene; Phenylamine

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Importer/Distributor
Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Manufacturer
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

Flammable liquids	Category 4
Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity	Category 3
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3

Target Organs - Central nervous system (CNS).

Specific target organ toxicity - (repeated exposure) Category 1
Target Organs - Kidney, Liver, spleen, Blood, Cardiovascular system.

Label Elements

Signal Word
Danger

Hazard Statements
Combustible liquid
Toxic if swallowed, in contact with skin or if inhaled
May cause an allergic skin reaction
Causes serious eye damage
May cause drowsiness and dizziness
Suspected of causing genetic defects
Suspected of causing cancer
Causes damage to organs through prolonged or repeated exposure

Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Do not breathe dust/fumes/gas/mist/vapours/spray
Wash face, hands and any exposed skin thoroughly after handling
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
Response
IF ON SKIN: Wash with plenty of soap and water
IF INHALED: Remove person to fresh air and keep comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER/doctor
Rinse mouth
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
Take off immediately all contaminated clothing and wash it before reuse
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant

Other Hazards
Very toxic to aquatic life with long lasting effects
Light sensitive

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Aniline	62-53-3	>95

4. First-aid measures

General Advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms/effects Causes severe eye damage. May cause allergic skin reaction. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Unsuitable Extinguishing Media No information available

Flash Point 76 °C / 168.8 °F

Method - No information available

Autoignition Temperature 540 °C / 1004 °F

Explosion Limits

Upper	11 vol %
Lower	1.3 vol %
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Combustible material. Containers may explode when heated. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors. Combustible material. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products
Carbon monoxide (CO). Carbon dioxide (CO_2). Nitrogen oxides (NOx).

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
3	2	0	N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Protect from sunlight. Incompatible Materials. Acids. Alkali metals. Oxidizing agent.

8. Exposure controls / personal protection

Exposure Guidelines

Component	Alberta	British Columbia	Ontario TWAEV	Quebec
Aniline	TWA: 2 ppm TWA: 7.6 mg/m³ Skin	TWA: 2 ppm Skin	TWA: 2 ppm Skin	TWA: 2 ppm TWA: 7.6 mg/m³ Skin

Component	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
Aniline	TWA: 2 ppm Skin	TWA: 2 ppm Skin	TWA: 2 ppm Skin	TWA: 2 ppm Skin

Component	Nunavut	Prince Edward Island	Saskatchewan	Yukon
Aniline	TWA: 2 ppm STEL: 4 ppm Skin	TWA: 2 ppm	TWA: 2 ppm STEL: 4 ppm Skin	TWA: 5 ppm TWA: 19 mg/m³ STEL: 5 ppm STEL: 19 mg/m³ Skin

Component	ACGIH TLV	OSHA PEL	NIOSH
Aniline 62-53-3 (>95)	TWA: 2 ppm Skin	(Vacated) TWA: 2 ppm (Vacated) TWA: 8 mg/m³ Skin TWA: 5 ppm TWA: 19 mg/m³	IDLH: 100 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact,

and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles
Hand Protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Butyl rubber	> 480 minutes	0.35 mm	As tested under EN374-3
Viton (R)	> 480 minutes	0.3 mm	Determination of Resistance to Permeation by Chemicals

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Recommended Filter type: Particulates filter conforming to EN 143 or Ammonia and organic ammonia derivatives filter Type K Green conforming to EN14387

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls
Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

9. Physical and chemical properties

Appearance

Physical State	Liquid		
Color	Light yellow		
Odor	aromatic Amine compounds		
Odor Threshold	No information available		
Property	**Values**	**Remarks**	**• Method**
Melting Point/Range	-6.2 °C / 20.8 °F		
Softening Point	No data available		
Boiling Point/Range	181 - 185 °C / 357.8 - 365 °F	@ 760 mmHg	
Flash Point	76 °C / 168.8 °F	**Method -** No information available	
Flammability (liquid)	Combustible liquid	On basis of test data	
Flammability (solid,gas)	Not applicable	Liquid	
Explosion Limits	**Lower** 1.3 vol% **Upper** 11 vol%		
Autoignition Temperature	540 °C / 1004 °F		
Decomposition Temperature	190 °C		
pH	8.8	36 g/L aq.sol	
Viscosity	4.4 mPa.s at 20 °C		
Water Solubility	36 g/L (20°C)		
Solubility in other solvents	No information available		

Partition Coefficient (n-octanol/water)

Component	**log Pow**
Aniline	0.91

Vapor Pressure	0.5 mmHg @ 20 °C	
Density / Specific Gravity	1.021	
Bulk Density	Not applicable	Liquid
Vapor Density	3.3 (Air = 1.0)	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

Other Information

Molecular Formula	C6 H7 N
Molecular Weight	93.13
Explosive Properties	explosive air/vapour mixtures possible
Evaporation Rate	1 (Butyl acetate = 1.0)

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions. Light sensitive.

Conditions to Avoid Incompatible products. Heat, flames and sparks. Exposure to light. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials Acids, Alkali metals, Oxidizing agent

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2), Nitrogen oxides (NOx)

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation Toxic by inhalation. May cause irritation of respiratory tract. INHALATION MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS.

Ingestion Toxic if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Eyes Risk of serious damage to eyes.

Skin Toxic in contact with skin. May cause irritation. May produce an allergic reaction.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Aniline	LD50 = 440 mg/kg (Rat)	LD50 = 442 mg/kg (Rat)	1 mg/L (Rat) 4 h 1.82 mg/L (Rat) 4 h

Toxicologically Synergistic Products No information available

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory Based on available data, the classification criteria are not met
Skin Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity; Category 2

Category 2

(f) carcinogenicity; Category 2

Limited evidence of a carcinogenic effect

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Aniline	62-53-3	Group 2A	Not listed	A3	X	A3

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen

Mexico - Occupational Exposure Limits - Carcinogens

ACGIH: (American Conference of Governmental Industrial Hygienists)
Mexico - Occupational Exposure Limits - Carcinogens
A1 - Confirmed Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Confirmed Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
A5 - Not Suspected as a Human Carcinogen

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Based on available data, the classification criteria are not met

(i) STOT-repeated exposure; Category 1

Target Organs Liver, Kidney, spleen, Central nervous system (CNS), Blood, Eyes, Skin, Cardiovascular system, Bladder.

(j) aspiration hazard; Based on available data, the classification criteria are not met

Symptoms / effects,both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Aniline	Not listed	Oncorhynchus mykiss: LC50 = 10.96 mg/L 96h	EC50 = 425 mg/L 5 min EC50 = 488 mg/L 15 min	EC50 = 0.16 mg/L 48h

Persistence and Degradability Persistence is unlikely

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Aniline	0.91

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Aniline - 62-53-3	U012	-

14. Transport information

DOT

UN-No	UN1547
Proper Shipping Name	ANILINE
Hazard Class	6.1
Packing Group	II

TDG

UN-No	UN1547
Proper Shipping Name	ANILINE
Hazard Class	6.1
Packing Group	II

IATA

UN-No	UN1547
Proper Shipping Name	Aniline
Hazard Class	6.1
Packing Group	II

IMDG/IMO

UN-No	UN1547
Proper Shipping Name	Aniline
Hazard Class	6.1
Packing Group	II

15. Regulatory information

International Inventories

Component	CAS-No	DSL	NDSL	TSCA	TSCA Inventory notification - Active-Inactive	EINECS	ELINCS	NLP
Aniline	62-53-3	X	-	X	ACTIVE	200-539-3	-	-

Component	CAS-No	IECSC	KECL	ENCS	ISHL	TCSI	AICS	NZIoC	PICCS
Aniline	62-53-3	X	KE-01180	X	X	X	X	X	X

Legend:
X - Listed '-' - Not listed
KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
IECSC - Chinese Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
ENCS - Japanese Existing and New Chemical Substances
AICS - Australian Inventory of Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

Component	Canada - National Pollutant Release Inventory (NPRI)	Canadian Environmental Protection Agency (CEPA) - List of Toxic Substances	Canada's Chemicals Management Plan (CEPA)
Aniline	Part 1, Group A Substance Part 4 Substance		

Legend NPRI - National Pollutant Release Inventory

Other International Regulations

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Aniline	-	Use restricted. See entry 75. (see link for restriction details)	-

REACH links
https://echa.europa.eu/substances-restricted-under-reach

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
Not applicable

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Aniline	62-53-3	Listed	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Aniline	62-53-3	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By Product stewardship (Regulatory Affairs)
Thermo Fisher Scientific
email - begel.sdsdesk@thermofisher.com

Creation Date 16-March-2010
Revision Date 19-December-2025
Print Date 19-December-2025
Revision Summary This document has been updated to comply with the requirements of WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the Classification and Labelling of Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS