

SAFETY DATA SHEET

Revision Date 24-Dec-2021

Revision Number 4

1. Identification		
Product Name	o-Phenetidine	
Cat No. :	AC233480000; AC233480050; AC233485000	
Synonyms	2-Ethoxybenzenamine	
Recommended Use Uses advised against	Laboratory chemicals. Food, drug, pesticide or biocidal product use.	
Details of the supplier of the safety	data sheet	
<u>Company</u> Fisher Scientific Company One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Acros Organics One Reagent Lane Fair Lawn, NJ 07410	
Emergency Telephone Number	For information US call: 001-800-ACROS-01 / 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

Category 4 Category 3 Category 3 Category 3 Category 2

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids
Acute oral toxicity
Acute dermal toxicity
Acute Inhalation Toxicity - Vapors
Specific target organ toxicity - (repeated exposure)
Target Organs - Blood, Hematopoietic System.

Label Elements

Signal Word Danger

Hazard Statements

Combustible liquid May cause damage to organs through prolonged or repeated exposure Toxic if swallowed, in contact with skin or if inhaled



Precautionary Statements Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Wear protective gloves/protective clothing/eye protection/face protection Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray Keep away from heat/sparks/open flames/hot surfaces. - No smoking Keep cool Response Get medical attention/advice if you feel unwell Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician Skin IF ON SKIN: Wash with plenty of soap and water Call a POISON CENTER or doctor/physician if you feel unwell Remove/Take off immediately all contaminated clothing Wash contaminated clothing before reuse Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Rinse mouth Fire In case of fire: Use CO2, dry chemical, or foam for extinction 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 Hazards not otherwise classified (HNOC) None identified

3. Composition/Information on Ingredients

	Component	CAS No	Weight %	
	o-Phenetidine	94-70-2	99	
Eye Contact		Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.		
Skin Contact		mmediately with soap and plenty of water while removing all contaminated d shoes. Immediate medical attention is required.		
Inhalation		m exposure, lie down. Remove to fresh Immediate medical attention is required		

Ingestion

Call a physician immediately. Clean mouth with water.

Most important symptoms and
effectsDifficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness,
nausea and vomiting
Treat symptomaticallyNotes to PhysicianTreat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO $_2$). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.
Unsuitable Extinguishing Media	No information available
Flash Point	80 °C / 176 °F
Method -	No information available
Autoignition Temperature Explosion Limits	No information available
Upper	No data available
Lower	No data available
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.

Hazardous Combustion Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO₂).

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.

NFPA

Health 3	Flammability 2	Instability 0	Physical hazards N/A		
	6. Accidental re	lease measures			
Personal Precautions Environmental Precautions	DNS Remove all sources of ignition. Take precautionary measures against static discharges.				
Methods for Containment and Clean Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, Up sawdust). Keep in suitable, closed containers for disposal. Wear self-contained breathing apparatus and protective suit. Do not let this chemical enter the environment. Remove all sources of ignition.					
7. Handling and storage					
HandlingDo not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not inge If swallowed then seek immediate medical assistance. Handle product only in closed system or provide appropriate exhaust ventilation. Keep away from open flames, hot surfaces and sources of ignition.					
Storage.Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Protect fr direct sunlight. Store under an inert atmosphere. Keep containers tightly closed in a cool and well-ventilated place. Keep away from heat, sparks and flame. Incompatible Materials. Bases. Strong oxidizing agents. Acid anhydrides.					

8. Exposure controls / personal protection				
Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.			
Engineering Measures	Ensure adequate ventilation, especially in confined areas.			
Personal Protective Equipment				
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.			
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.			
Respiratory Protection	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.			
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.			

Physical StateLiquidAppearanceRedOdorOdorlessOdor ThresholdNo information availablepHNo information availablepHNo information availableBoiling Point/Range-20 °C / -4 °FBoiling Point/Range230 - 233 °C / 446 - 451.4 °F @ 760 mmHgFlash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsUpperUpperNo data availableLowerNo information availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information availableDecomposition TemperatureNo information available	9. Physical and	d chemical properties
OdorOdorlessOdor ThresholdNo information availablepHNo information availableMelting Point/Range-20 °C / -4 °FBoiling Point/Range230 - 233 °C / 446 - 451.4 °F @ 760 mmHgFlash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsUpperUpperNo data availableLowerNo information availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo information availableAutoignition TemperatureNo information available	Physical State	Liquid
Odor ThresholdNo information availablepHNo information availableMelting Point/Range-20 °C / -4 °FBoiling Point/Range230 - 233 °C / 446 - 451.4 °F @ 760 mmHgFlash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsUpperUpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Appearance	Red
pHNo information available -20 °C / -4 °FBoiling Point/Range-20 °C / -4 °FBoiling Point/Range230 - 233 °C / 446 - 451.4 °F @ 760 mmHgFlash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsVodata availableUpper LowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Odor	Odorless
Melting Point/Range-20 °C / -4 °FBoiling Point/Range230 - 233 °C / 446 - 451.4 °F @ 760 mmHgFlash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsUpperUpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Odor Threshold	No information available
Boiling Point/Range230 - 233 °C / 446 - 451.4 °F @ 760 mmHgFlash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsNot applicableUpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	рН	No information available
Flash Point80 °C / 176 °FEvaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsNot data availableUpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Melting Point/Range	-20 °C / -4 °F
Evaporation RateNo information availableFlammability (solid,gas)Not applicableFlammability or explosive limitsNo data availableUpperNo data availableLowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Boiling Point/Range	230 - 233 °C / 446 - 451.4 °F @ 760 mmHg
Flammability (solid,gas) Not applicable Flammability or explosive limits No data available Upper No data available Lower No data available Vapor Pressure No information available Vapor Density No information available Specific Gravity 1.050 Solubility No information available Partition coefficient; n-octanol/water No data available Autoignition Temperature No information available	Flash Point	80 °C / 176 °F
Flammability or explosive limitsNo data availableUpper LowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Evaporation Rate	No information available
Upper LowerNo data availableVapor PressureNo data availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Flammability (solid,gas)	Not applicable
LowerNo data availableVapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Flammability or explosive limits	
Vapor PressureNo information availableVapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Upper	No data available
Vapor DensityNo information availableSpecific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Lower	No data available
Specific Gravity1.050SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Vapor Pressure	No information available
SolubilityNo information availablePartition coefficient; n-octanol/waterNo data availableAutoignition TemperatureNo information available	Vapor Density	No information available
Partition coefficient; n-octanol/water No data available Autoignition Temperature No information available	Specific Gravity	1.050
Autoignition Temperature No information available	Solubility	No information available
	Partition coefficient; n-octanol/water	No data available
Decomposition Temperature No information available	Autoignition Temperature	No information available
	Decomposition Temperature	No information available
Viscosity No information available	Viscosity	
Molecular Formula C8 H11 N O	Molecular Formula	C8 H11 N O
Molecular Weight 137.18	Molecular Weight	137.18

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions. Air sensitive. Light sensitive.
Conditions to Avoid	Exposure to air. Exposure to light. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Bases, Strong oxidizing agents, Acid anhydrides

Hazardous Decomposition Products Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

Hazardous Polymerization No information available.

Hazardous Reactions

None under normal processing.

11. Toxicological information

Acute Toxicity

Acute Toxicity						
Product Information Component Informa Toxicologically Syr Products <u>Delayed and immec</u>	ation nergistic	No information ava		d long-term expo	sure_	
Irritation		No information ava	ilable			
Sensitization		No information ava	ilable			
Carcinogenicity		The table below in	dicates whether ea	ich agency has list	ed any ingredient a	as a carcinogen.
Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
o-Phenetidine	94-70-2	Not listed	Not listed	Not listed	Not listed	Not listed
Mutagenic Effects	001	No information ava				
Reproductive Effec	ts	No information ava	ilable.			
Developmental Effe	ects	No information ava	ilable.			
Teratogenicity		No information ava	ilable.			
STOT - single exposureNone knownSTOT - repeated exposureBlood Hematopoietic System						
Aspiration hazard No information available						
Symptoms / effects, both acute and Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting delayed				ea and vomiting		
Endocrine Disruptor InformationNo information availableOther Adverse EffectsThe toxicological properties have not been fully investigated.						
Other Adverse Effe	cts	The toxicological p	roperties have not	been fully investig	ated.	
		12. Ecolo	ogical infor	mation		
Ecotoxicity Do not empty into dra	ains					
Persistence and Degradability Insoluble in water May persist based on information available.						
Bioaccumulation/ A	Bioaccumulation / Accumulation No information available.					
Mobility		Is not likely mobile	in the environmen	t due its low water	solubility.	
		13. Dispo	sal conside	erations		
Waste Disposal Me	thods	Chemical waste ge hazardous waste. national hazardous	Chemical waste g	enerators must als	o consult local, reg	jional, and

	14 Treesent information	
14. Transport information		
DOT		
UN-No	UN2311	
Hazard Class	6.1	
Packing Group		
<u>TDG</u>		
UN-No	UN2311	
Hazard Class	6.1	
Packing Group		
UN-No	UN2311	
Proper Shipping Name	PHENETIDINES	
Hazard Class	6.1	
Packing Group		
IMDG/IMO		
UN-No	UN2311	
Proper Shipping Name	PHENETIDINES	
Hazard Class	6.1	
Packing Group		
	15. Regulatory information	

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
o-Phenetidine	94-70-2	Х	ACTIVE	-

Legend: TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed '-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
o-Phenetidine	94-70-2	-	Х	202-356-4	Х	Х	Х	Х	Х	-

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313	Not applicable
SARA 311/312 Hazard Categories	See section 2 for more information
CWA (Clean Water Act)	Not applicable
Clean Air Act	Not applicable
OSHA - Occupational Safety and Health Administration	Not applicable
CERCLA	Not applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know

Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
o-Phenetidine	Х	-	Х	-	-

U.S. Department of Transportation Reportable Quantity (RQ):

DOT Marine Pollutant	Ν
DOT Severe Marine Pollutant	Ν

U.S. Department of Homeland This product does not contain any DHS chemicals. Security

Ν

Other International Regulations

Mexico - Grade

No information available

Authorisation/Restrictions according to EU REACH

Component	- (REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	- J
o-Phenetidine	-	Use restricted. See item 75. (see link for restriction details)	-

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

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)
o-Phenetidine	94-70-2	Not applicable	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	Convention (PIC)	Basel Convention (Hazardous Waste)
o-Phenetidine	94-70-2	Not applicable	Not applicable	Not applicable	Not applicable

	16. Other information
Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Revision Date Print Date Revision Summary	24-Dec-2021 24-Dec-2021 This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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