

SAFETY DATA SHEET

Version 5.8
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Salicylaldehyde

Product Number : S356

Brand : Aldrich

Product Use : For laboratory research purposes.

Supplier : Sigma-Aldrich Canada Co.
 2149 Winston Park Drive
 OAKVILLE ON L6H 6J8
 CANADA

Manufacturer : Sigma-Aldrich Corporation
 3050 Spruce St.
 St. Louis, Missouri 63103
 USA

Telephone : +1 9058299500

Fax : +1 9058299292

Emergency Phone # (For both supplier and manufacturer) : +1-703-527-3887 (CHEMTREC)

Preparation Information : Sigma-Aldrich Corporation
 Product Safety - Americas Region
 1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

Target Organs

Central nervous system, Kidney, Liver, Pancreas, Spleen.

WHMIS Classification

B3	Combustible Liquid	Combustible Liquid
D1B	Toxic Material Causing Immediate and Serious Toxic Effects	Toxic by ingestion
D2B	Toxic Material Causing Other Toxic Effects	Toxic by skin absorption
E	Corrosive Material	Toxic by inhalation. Chronic toxicity Moderate respiratory irritant Moderate eye irritant Skin sensitiser Mutagen Corrosive to skin

GHS Classification

Flammable liquids (Category 4)

Acute toxicity, Oral (Category 4)

Acute toxicity, Dermal (Category 5)

Skin corrosion/irritation (Category 2)

Serious eye damage/eye irritation (Category 2A)

Skin sensitisation (Category 1)

Germ cell mutagenicity (Category 2)

Specific target organ toxicity - single exposure (Category 3), Respiratory system

Specific target organ toxicity - repeated exposure (Category 2)

Acute aquatic toxicity (Category 2)

Chronic aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H227	Combustible liquid.
H302	Harmful if swallowed.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391	Collect spillage.
P403	Store in a well-ventilated place.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard:	3
Chronic Health Hazard:	*
Flammability:	2
Physical hazards:	0

Potential Health Effects

Inhalation	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.
Skin	Toxic if absorbed through skin. Causes skin burns. Causes skin irritation.
Eyes	Causes eye burns. Causes eye irritation.
Ingestion	Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 2-Hydroxybenzaldehyde

Formula : C₇H₆O₂

CAS-No.	EC-No.	Index-No.	Concentration
Phenol			
108-95-2	203-632-7	604-001-00-2	<= 1 %
Salicylaldehyde			
90-02-8	201-961-0	-	>= 98 %

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Explosion data - sensitivity to mechanical impact

No data available

Explosion data - sensitivity to static discharge

No data available

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Phenol	108-95-2	TWA	5.000000 ppm 19.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Substance may be readily absorbed through intact skin			
		TWA	5.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		TWAEV	5.000000 ppm 19.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		TWA	5.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 30 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	clear, yellow

Safety data

pH	6 - 8 at 20 °C (68 °F) - (undiluted)
Melting point/freezing point	Melting point/range: 1 - 2 °C (34 - 36 °F)
Boiling point	197 °C (387 °F)
Flash point	ca.78 °C (172 °F) - closed cup
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	ca.0.79 hPa (0.59 mmHg) at 25 °C (77 °F) - OECD Test Guideline 104
Density	1.146 g/mL at 25 °C (77 °F) -
Water solubility	4.9 g/l at 25 °C (77 °F) - OECD Test Guideline 105 - soluble
Partition coefficient: n-octanol/water	log Pow: 1.66 at 25 °C (77 °F) - OECD Test Guideline 107
Solubility in other solvents	Ethanol at 20 °C - completely miscible
Relative vapour density	4.2 - (Air = 1.0)
Odour	bitter almond
Odour Threshold	No data available
Evaporation rate	No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

May react violently with:., Strong oxidizing agents, Halogens, Strong acids and strong bases, Fluorine

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

No data available

Inhalation LC50

No data available

Dermal LD50

No data available

Other information on acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Eyes: No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation

Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.

Ingestion

Toxic if swallowed.

Skin

Toxic if absorbed through skin. Causes skin burns. Causes skin irritation.

Eyes

Causes eye burns. Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

No data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION**Toxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

NA-Number: 1993 Class: NONE Packing group: III
 Proper shipping name: Combustible liquid, n.o.s. (Salicylaldehyde)
 Reportable Quantity (RQ):
 Marine pollutant: No
 Poison Inhalation Hazard: No

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION**WHMIS Classification**

B3	Combustible Liquid	Combustible Liquid
D1B	Toxic Material Causing Immediate and Serious Toxic Effects	Toxic by ingestion
D2B	Toxic Material Causing Other Toxic Effects	Toxic by skin absorption
E	Corrosive Material	Toxic by inhalation. Chronic toxicity Moderate respiratory irritant Moderate eye irritant Skin sensitiser Mutagen Corrosive to skin

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

Further information

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