







# Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
 	<p><b>Toxic compound, do not ingest or inhale. Avoid all contact with this material.</b></p> <p><b>Irritating to skin, eyes, and the respiratory system.</b></p> <p><b>Possible respiratory sensitizer.</b></p> <p><b>Reproductive effector. May damage fertility or the unborn child.</b></p>	   

## Section I. Chemical Product and Company Identification

Chemical Name	<b>Acetylsalicylic Acid</b>		
Catalog Number	A2262	Supplier	TCI America 9211 N. Harborgate St. Portland OR 1-800-423-8616
Synonym	Benzoic acid, 2-(acetyloxy)- (CA INDEX NAME); 2-Acetoxybenzoic Acid; ASA		
Chemical Formula	C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>		
CAS Number	50-78-2	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Acetylsalicylic Acid	50-78-2	Min. 98.0 (GC, T)	Not available.	Rat LD <sub>50</sub> (oral) 950 mg/kg Mouse LD <sub>50</sub> (oral) 250 mg/kg Rat LD <sub>50</sub> (intraperitoneal) 340 mg/kg

## Section III. Hazards Identification

Acute Health Effects	<p>Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <p>Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.</p>
Chronic Health Effects	<p><b>CARCINOGENIC EFFECTS</b> : Not available.</p> <p><b>MUTAGENIC EFFECTS</b> : Not available.</p> <p><b>TERATOGENIC EFFECTS</b> : Not available.</p> <p><b>DEVELOPMENTAL TOXICITY</b>: Reproductive effects.</p> <p>Woman TDLo Oral 17280 mg/kg, female 1-39 weeks of pregnancy</p> <p><b>TOXIC EFFECTS</b>:</p> <p>Specific Developmental Abnormalities - Cardiovascular (circulatory) system</p> <p>Specific Developmental Abnormalities - Respiratory system</p> <p>Effects on Newborn - Apgar score (human only)</p> <p>Woman TDLo Oral 189 mg/kg, female 12-39 weeks of pregnancy</p> <p><b>TOXIC EFFECTS</b>:</p> <p>Maternal Effects - Parturition</p> <p>Effects on Embryo or Fetus - Fetotoxicity</p> <p>Specific Developmental Abnormalities - Blood and lymphatic system</p> <p>Woman TDLo Oral 7500 mg/kg, female 34-37 weeks of pregnancy</p> <p><b>TOXIC EFFECTS</b>:</p> <p>Maternal Effects - Other effects</p> <p>Effects on Newborn - Stillbirth</p> <p>Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	<b>INDUCE VOMITING</b> by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

**Section V. Fire and Explosion Data**

Flammability	May be combustible at high temperature.	Auto-Ignition	490 to 500 °C (914 to 932 °F)
Flash Points	250 °C (482 °F)	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ).		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		


**Section VI. Accidental Release Measures**

Spill Cleanup Instructions	Toxic material. Irritating material. This material is a possible respiratory sensitizer. This material is a reproductive effector. Stop leak if without risk. DO NOT get water inside container. DO NOT touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.
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**Section VII. Handling and Storage**

Handling and Storage Information	TOXIC. IRRITANT. POSSIBLE RESPIRATORY SENSITIZER. REPRODUCTIVE EFFECTOR. Keep locked up. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, acids, alkalis (bases).
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**Section VIII. Exposure Controls/Personal Protection**

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. 
Exposure Limits	Not available.

**Section IX. Physical and Chemical Properties**

Physical state @ 20°C	Solid. (White ~ light yellow, crystal ~ powder.)	Solubility	Soluble in water.
Specific Gravity	1.40 (water=1)		
Molecular Weight	180.16	Partition Coefficient	LOG P <sub>ow</sub> : 1.19
Boiling Point	Not available.	Vapor Pressure	Not applicable.
Melting Point	134 °C (273.2 °F)	Vapor Density	Not available.
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Odorless.
Viscosity	Not available.	Taste	Not available.

**Section X. Stability and Reactivity Data**

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with oxidizing agents, acids, alkalis (bases).

**Section XI. Toxicological Information**

RTECS Number	VO0700000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Rat LD <sub>50</sub> (oral) 950 mg/kg Mouse LD <sub>50</sub> (oral) 250 mg/kg Rat LD <sub>50</sub> (intraperitoneal) 340 mg/kg
Chronic Toxic Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> : Reproductive effects. Woman TDLo Oral 17280 mg/kg, female 1-39 weeks of pregnancy <b>TOXIC EFFECTS</b> : Specific Developmental Abnormalities - Cardiovascular (circulatory) system Specific Developmental Abnormalities - Respiratory system Effects on Newborn - Apgar score (human only) Woman TDLo Oral 189 mg/kg, female 12-39 weeks of pregnancy <b>TOXIC EFFECTS</b> : Maternal Effects - Parturition Effects on Embryo or Fetus - Fetotoxicity Specific Developmental Abnormalities - Blood and lymphatic system Woman TDLo Oral 7500 mg/kg, female 34-37 weeks of pregnancy <b>TOXIC EFFECTS</b> : Maternal Effects - Other effects Effects on Newborn - Stillbirth Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Acute Toxic Effects	Toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.


**Section XII. Ecological Information**

Ecotoxicity	Not available.
Environmental Fate	Acetylsalicylic acid's production and use as a common over-the-counter analgesic, anti-pyretic, anti-inflammatory and anti-thrombetic may result in its release to the environment through various waste streams. If released to air, a vapor pressure of 2.5X10 <sup>-5</sup> mm Hg at 25 deg C indicates that acetylsalicylic acid is expected to exist in both the vapor and particulate phases in the ambient atmosphere. Vapor-phase acetylsalicylic acid is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 12 days. Particulate-phase acetylsalicylic acid may be removed from the air by wet or dry deposition. Acetylsalicylic acid contains chromophores that absorb at wavelengths >290 nm and therefore may be susceptible to direct photolysis by sunlight. If released to soil, acetylsalicylic acid is expected to have high mobility based upon an estimated Koc of 100. The pKa of acetylsalicylic acid is 3.49, indicating that this compound will exist almost entirely in the anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts. Volatilization from moist soil surfaces is not expected to be an important fate process since anions do not volatilize. Acetylsalicylic acid is not expected to volatilize from dry soil surfaces based upon its vapor pressure. No biodegradation studies were located for acetylsalicylic acid in soil or water; however, acetylsalicylic acid was classified as readily biodegradable in screening tests. An aqueous hydrolysis half-life of 6.2 days at pH 7.4 and 17 deg C, suggests hydrolysis may occur in moist soils. If released into water, acetylsalicylic acid is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is not an important fate process since anions do not volatilize. An estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low. Aqueous hydrolysis half-lives ranging from 1.2 hours to 12.5 days at pH 3.5 to 11.3 and 17 deg C, indicates hydrolysis will be an important aquatic fate process. Occupational exposure to acetylsalicylic acid may occur through inhalation of dust and dermal contact with this compound at workplaces where acetylsalicylic acid is produced or used. The general population is exposed to acetylsalicylic acid through its ingestion as an over-the-counter medication.

**Section XIII. Disposal Considerations**

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.
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**Section XIV. Transport Information**

DOT Classification	Not a DOT controlled material (United States).
PIN Number	Not applicable.
Proper Shipping Name	Not applicable.
Packing Group (PG)	Not applicable.
DOT Pictograms	

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA)	This compound is <b>ON</b> the EPA Toxic Substances Control Act (TSCA) inventory list.
WHMIS Classification (Canada)	CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). On DSL.
EINECS Number (EEC)	200-064-1
EEC Risk Statements	R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R42- May cause sensitization by inhalation. R60- May impair fertility. R61- May cause harm to the unborn child.
Japanese Regulatory Data	ENCS No. 3-1652

**Section XVI. Other Information**

**Version 1.0**  
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**Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

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