MSDS Number: **A7686** * * * * * *Effective Date:* ***08/15/05***

# ASPIRIN

## 1. Product Identification

**Synonyms:** 2-(acetyloxy)benzoic acid; salicylic acid acetate; acetysalicylic acid
**CAS No.:** 50-78-2
**Molecular Weight:** 180.15
**Chemical Formula:** C9H8O4
**Product Codes:** 2945

## 2. Composition/Information on Ingredients

| Ingredient | CAS No | Percent | Hazardous |
|---|---|---|---|
| Acetylsalicylic Acid | 50-78-2 | 100% | Yes |

## 3. Hazards Identification

**Emergency Overview**
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**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC RESPIRATORY REACTION. POSSIBLE BIRTH DEFECT HAZARD. MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA. AFFECTS THE RESPIRATORY SYSTEM, LIVER, KIDNEYS, EYES, SKIN AND BLOOD.**

**Potential Health Effects**
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**Inhalation:**
Causes irritation to the respiratory tract. Exposure may cause an allergy to develop.
**Ingestion:**
Extremely large oral doses may cause mild burning pain in the mouth and stomach, anorexia, nausea, vomiting, intense thirst, diarrhea, dizziness, irritability, confusion, coma, teratogenic effects, and death from respiratory failure. The mean lethal dose of aspirin by mouth probably lies between 20 and 30 grams in adults.

**Skin Contact:**
May cause irritation.
**Eye Contact:**
Causes irritation. Contact cause severe pain and may cause eye damage.
**Chronic Exposure:**
Repeated ingestion may cause tinitus, abnormal bleeding (gastric or retinal), gastric ulcer, weight loss, mental deterioration, and skin eruptions. May cause kidney and liver damage in susceptible individuals.
**Aggravation of Pre-existing Conditions:**
Persons with a history of asthma or allergies to aspirin may be at an increased risk upon exposure to this substance.

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# 4. First Aid Measures

**Inhalation:**
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
**Ingestion:**
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.
**Skin Contact:**
In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops or persists.
**Eye Contact:**
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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# 5. Fire Fighting Measures

**Fire:**
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.
**Explosion:**
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Minimum explosive dust concentration: 40 g/m3.
**Fire Extinguishing Media:**
Water spray, foam, or dry chemical.
**Special Information:**
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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# 6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

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# 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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# 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**
- ACGIH Threshold Limit Value (TLV): 5 mg/m3 (TWA)

**Ventilation System:**
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**
If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**
Wear protective gloves and clean body-covering clothing.

**Eye Protection:**
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

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# 9. Physical and Chemical Properties

**Appearance:**
Transparent, colorless crystals.

**Odor:**
Odorless.

**Solubility:**
1g/100g water @ 37C.

**Specific Gravity:**
1.40

**pH:**
No information found.

**% Volatiles by volume @ 21C (70F):**
0

**Boiling Point:**
140C (284F)

**Melting Point:**
135C (275F)

**Vapor Density (Air=1):**
No information found.
**Vapor Pressure (mm Hg):**
No information found.
**Evaporation Rate (BuAc=1):**
No information found.

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# 10. Stability and Reactivity

**Stability:**
Stable in dry air.
**Hazardous Decomposition Products:**
Decomposes to acetic acid and salicylic acids in the presence of moist air. Carbon dioxide and carbon monoxide may form when heated to decomposition.
**Hazardous Polymerization:**
Will not occur.
**Incompatibilities:**
Strong oxidizers, alkali hydroxides, boiling water, and antipyrine, aminopyrine, methamine, phenol, phenyl salicylate, and sodium bicarbonate.
**Conditions to Avoid:**
Moisture.

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# 11. Toxicological Information

**Toxicological Data:**
Oral rat LD50: 200 mg/kg; investigated as a mutagen, reproductive effector.
**Reproductive Toxicity:**
Reproductive effects recorded on humans.

--------\Cancer Lists\----------

| Ingredient | ---NTP Carcinogen--- Known | Anticipated | IARC Category |
|---|---|---|---|
| Acetylsalicylic Acid (50-78-2) | No | No | None |

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# 12. Ecological Information

**Environmental Fate:**
When released into the soil, this material may leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.
**Environmental Toxicity:**
No information found.

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# 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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# 14. Transport Information

Not regulated.

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# 15. Regulatory Information

--------\Chemical Inventory Status - Part 1\---------------------------------

| Ingredient | TSCA | EC | Japan | Australia |
|---|---|---|---|---|
| Acetylsalicylic Acid (50-78-2) | Yes | Yes | Yes | Yes |

--------\Chemical Inventory Status - Part 2\---------------------------------

| Ingredient | Korea | --Canada-- DSL | NDSL | Phil. |
|---|---|---|---|---|
| Acetylsalicylic Acid (50-78-2) | Yes | Yes | No | Yes |

--------\Federal, State & International Regulations - Part 1\----------------

| Ingredient | -SARA 302- RQ | TPQ | ------SARA 313------ List | Chemical Catg. |
|---|---|---|---|---|
| Acetylsalicylic Acid (50-78-2) | No | No | No | No |

--------\Federal, State & International Regulations - Part 2\----------------

| Ingredient | CERCLA | -RCRA- 261.33 | -TSCA- 8(d) |
|---|---|---|---|
| Acetylsalicylic Acid (50-78-2) | No | No | No |

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: No (Pure / Solid)

**WARNING:**
THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

**Australian Hazchem Code:** None allocated.
**Poison Schedule:** S2
**WHMIS:**
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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# 16. Other Information

**NFPA Ratings:** Health: **2** Flammability: **1** Reactivity: **0**

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC RESPIRATORY REACTION. POSSIBLE BIRTH DEFECT HAZARD. MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA. AFFECTS THE RESPIRATORY SYSTEM, LIVER, KIDNEYS, EYES, SKIN AND BLOOD.

**Label Precautions:**

Do not breathe dust.
Avoid contact with eyes, skin and clothing.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases call a physician.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

New MSDS.

**Disclaimer:**

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