

# MATERIAL SAFETY DATA SHEET

## CAY10404

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Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Printed: 07/28/2005  
Revision: 07/28/2005  
Supersedes Revision: 05/30/2003  
Date Created: 04/07/2003

### 1. Product and Company Identification

**Product Code:** 70210  
**Product Name:** CAY10404  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Inhibitors  
**Synonyms:** 3-(4-methylsulphonylphenyl)-4-phenyl-5-trifluoromethylisoxazole

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. CAY10404	NA	100.0 %	No data.	No data.	No data.

### 3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.  
The toxicological properties of this compound have not been fully evaluated.  
**Signs and Symptoms Of Exposure:** No data available.

### 4. First Aid Measures

**Emergency and First Aid Procedures:** If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

### 5. Fire Fighting Measures

**Flash Pt:** No data. Method Used: See note below  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** No data.  
**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
**Flammable Properties and Hazards:** No data available.  
**Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.  
**Unsuitable Extinguishing Media:** No data available.

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### 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).  
Vacuum or sweep up material and place in disposal container.  
Avoid raising dust.  
After removal, ventilate contaminated area and flush thoroughly with water.

### 7. Handling and Storage

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Handling:** Avoid breathing (dust, vapor, mist, gas).  
Avoid contact with eyes, skin, and clothing.  
Avoid prolonged or repeated exposure.  
Do not reuse this container.  
Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Storing:** Store at correct temperature.

### 8. Exposure Controls/Personal Protection

**Protective Equipment Summary - Hazard Label Information:** Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood

**Respiratory Equipment (Specify Type):** No data available.

**Eye Protection:** Safety glasses

**Protective Gloves:** Latex disposable gloves

**Other Protective Clothing:** Lab coat

**Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance Practices:** Do not take internally.  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Wash thoroughly after handling.

### 9. Physical and Chemical Properties

**Physical States:**  Gas  Liquid  Solid

**Melting Point:** No data.

**Boiling Point:** No data.

**Autoignition Pt:** No data.

**Flash Pt:** No data. Method: See note below

**Explosive Limits:** LEL: No data. UEL: No data.

**Specific Gravity (Water = 1):** No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Evaporation Rate (vs Butyl Acetate=1):** No data.

**Solubility in Water:** 0.5 mg/ml\* at 25.0 C

**Other Solubility Notes:** \*PBS pH 7.2:DMF (1:1), sol. in DMF, DMSO & EtOH

**Percent Volatile:** No data.

**Corrosion Rate:** No data.

**Formula:** C17H12NSO3F3

**Molecular Weight:** 367.40

**pH:** No data.

**Appearance and Odor:** A crystalline solid

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### 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability:** No data available.  
**Incompatibility - Materials To Avoid:** No data available.  
**Hazardous Decomposition Or Byproducts:** No data available.  
**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Polymerization:** No data available.

### 11. Toxicological Information

**Toxicological Information:** The toxicological effects of this compound have not been thoroughly studied.  
**Carcinogenicity/Other Information:** No data available.  
**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

### 12. Ecological Information

**Ecological Information:** Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

**Waste Disposal Method:** Dispose in accordance with local, state and federal regulations.

### 14. Transport Information

**LAND TRANSPORT (US DOT)**  
**DOT Proper Shipping Name:** No data available.  
**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### 15. Regulatory Information

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. CAY10404	NA	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. CAY10404	NA	No	No	No	No

**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

**Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.  
**Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.  
**Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.  
**Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

**5A(2):** Chemical Subject to Significant New Rules (SNURS)  
**6A:** Commercial Chemical Control Rules  
**8A:** Toxic Substances Subject To Information Rules on Production  
**8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)  
**8A PAIR:** Preliminary Assessment Information Rules - (PAIR)  
**8C:** Records of Allegations of Significant Adverse Reactions  
**8D:** Health and Safety Data Reporting Rules  
**8D TERM:** Health and Safety Data Reporting Rule Terminations

**Other Important Lists:**

**CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical  
**CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant  
**CAA ODC:** EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)

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CA PROP 65:

California Proposition 65

**16. Other Information**

**Company Policy or Disclaimer**

For research use only, not for human or veterinary clinical use.

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

# MATERIAL SAFETY DATA SHEET

## Aspirin

Page: 1

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Printed: 08/17/2005  
Revision: 08/17/2005  
Supersedes Revision: 05/10/2004  
Date Created: 06/27/1996

### 1. Product and Company Identification

**Product Code:** 70260  
**Product Name:** Aspirin  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Inhibitors  
**CAS Number:** 50-78-2  
**RTECS #:** VO0700000  
**Synonyms:** 2-(acetyloxy)-benzoic acid; Acetylsalicylic Acid

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. Acetylsalicylic acid	50-78-2	100.0 %	No data.	TWA 5 mg/m <sup>3</sup>	No data.
Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Acetylsalicylic acid	VO0700000	No data.	No data.	No data.	No data.

### 3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** California Prop. 65 developmental toxin.  
California Prop. 65 reproductive hazard.  
Causes eye, skin, and respiratory system irritation.  
Harmful.  
Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause sensitization.  
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.  
The toxicological properties of this compound have not been fully evaluated.  
**LD 50/LC 50:** Please refer to Section 11.  
**Signs and Symptoms Of Exposure:** No data available.

### 4. First Aid Measures

**Emergency and First Aid Procedures:** If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**Aspirin**

**5. Fire Fighting Measures**

<b>Flash Pt:</b>	No data.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Autoignition Pt:</b>	No data.
<b>Fire Fighting Instructions:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
<b>Flammable Properties and Hazards:</b>	Emits toxic fumes under fire conditions.
<b>Extinguishing Media:</b>	Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.
<b>Unsuitable Extinguishing Media:</b>	No data available.

**6. Accidental Release Measures**

<b>Steps To Be Taken In Case Material Is Released Or Spilled:</b>	Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves). Vacuum or sweep up material and place in disposal container. Avoid raising dust. After removal, ventilate contaminated area and flush thoroughly with water.
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**7. Handling and Storage**

<b>Hazard Label Information:</b>	Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
<b>Precautions To Be Taken in Handling:</b>	Avoid breathing (dust, vapor, mist, gas). Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.
<b>Precautions To Be Taken in Storing:</b>	Keep tightly closed. Store at correct temperature.

**8. Exposure Controls/Personal Protection**

<b>Protective Equipment Summary - Hazard Label Information:</b>	Eye wash station in work area   Lab coat   Latex disposable gloves   Safety glasses   Safety shower in work area   Vent Hood
<b>Respiratory Equipment (Specify Type):</b>	Government approved respirator as conditions warrant.
<b>Eye Protection:</b>	Safety glasses
<b>Protective Gloves:</b>	Latex disposable gloves
<b>Other Protective Clothing:</b>	Lab coat
<b>Engineering Controls (Ventilation etc.):</b>	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
<b>Work/Hygienic/Maintenance Practices:</b>	Do not take internally. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Wash thoroughly after handling.

**9. Physical and Chemical Properties**

<b>Physical States:</b>	<input type="checkbox"/> Gas <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid
<b>Melting Point:</b>	138.00 C - 140.00 C
<b>Boiling Point:</b>	No data.
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	No data. Method:
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Specific Gravity (Water = 1):</b>	No data.

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<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	No data.
<b>Evaporation Rate (vs Butyl Acetate=1):</b>	No data.
<b>Solubility in Water:</b>	>2.7 mg/ml* at 25.0 C
<b>Other Solubility Notes:</b>	*PBS pH 7.2, sol. in EtOH, DMSO, & DMF
<b>Percent Volatile:</b>	No data.
<b>Corrosion Rate:</b>	No data.
<b>Formula:</b>	C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	180.20
<b>pH:</b>	No data.
<b>Appearance and Odor:</b>	A crystalline solid

## 10. Stability and Reactivity

<b>Stability:</b>	Unstable [ ] Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	protect from moisture
<b>Incompatibility - Materials To Avoid:</b>	strong acids strong bases strong oxidizing agents
<b>Hazardous Decomposition Or Byproducts:</b>	carbon dioxide carbon monoxide
<b>Hazardous Polymerization:</b>	Will occur [ ] Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Polymerization:</b>	No data available.

## 11. Toxicological Information

<b>Toxicological Information:</b>	The toxicological effects of this compound have not been thoroughly studied.
	<p>Oral LD50 (rat): 1700 mg/kg  Oral LD50 (rat): 1500 mg/kg  Oral LDLO (child): 104 mg/kg  Oral LD50 (rat): 200 mg/kg  Intraperitoneal LD50 (rat): 340 mg/kg  Rectal LD50 (rat): 790 mg/kg  Oral LD50 (mouse): 250 mg/kg  Intraperitoneal LD50 (mouse): 167 mg/kg  Subcutaneous LD50 (mouse): 1020 mg/kg  Oral LD50 (dog): 700 mg/kg  Intravenous LD50 (dog): 681 mg/kg  Oral LD50 (rabbit): 1010 mg/kg  Oral LD50 (guinea pig): 1075 mg/kg  Oral LD50 (hamster): 3500 mg/kg  Oral LD50 (mammal): 1750 mg/kg</p>
<b>Chronic Toxicological Effects:</b>	Investigated as a teratogen, mutagen and reproductive effector.
	<p>Target organ data:  Effects on embryo or fetus (extra embryonic structures (e.g., placenta, umbilical cord)).  Effects on embryo or fetus (fetal death).  Effects on embryo or fetus (fetotoxicity (except death, e.g., stunted fetus)).  Effects on embryo or fetus (other effects to embryo).  Effects on fertility (other measures of fertility).  Effects on fertility (pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea)).  Effects on fertility (post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants)).  Effects on newborn (apgar score (human only)).  Effects on newborn (biochemical and metabolic).</p>

**Aspirin**

Effects on newborn (live birth index (# fetuses per litter; measured after birth)).  
 Effects on newborn (other neonatal measures or effects).  
 Effects on newborn (other postnatal measures or effects).  
 Effects on newborn (stillbirth).  
 Maternal effects (menstrual cycle changes or disorders).  
 Maternal effects (other effects).  
 Maternal effects (parturition).  
 Paternal effects (spermatogenesis (including genetic material, sperm morphology, motility, and count)).  
 Paternal effects (testes, epididymis, sperm duct).  
 Specific developmental abnormalities (blood and lymphatic system (including spleen and marrow)).  
 Specific developmental abnormalities (body wall).  
 Specific developmental abnormalities (cardiovascular (circulatory) system).  
 Specific developmental abnormalities (central nervous system).  
 Specific developmental abnormalities (craniofacial (including nose and tongue)).  
 Specific developmental abnormalities (eye, ear).  
 Specific developmental abnormalities (musculoskeletal system).  
 Specific developmental abnormalities (other developmental abnormalities).  
 Specific developmental abnormalities (respiratory system).

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.  
 See actual entry in RTECS for complete information.  
 Aspirin RTECS Number: VO0700000.

**Carcinogenicity/Other Information:**

No data available.

**Carcinogenicity:**

NTP? No IARC Monographs? No OSHA Regulated? No

**12. Ecological Information**

**Ecological Information:**

Runoff from fire control or dilution water may cause pollution.

**13. Disposal Considerations**

**Waste Disposal Method:**

Dispose in accordance with local, state and federal regulations.

**14. Transport Information**

**LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name:**

No data available.

**Additional Transport Information:**

Transport in accordance with local, state, and federal regulations.

**15. Regulatory Information**

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Acetylsalicylic acid	50-78-2	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Acetylsalicylic acid	50-78-2	No	No	No	Yes

**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

**Sec.302:**

EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.

**Sec.304:**

EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.

**Sec.313:**

EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

**Sec.110:**

EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

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<b>5A(2):</b>	Chemical Subject to Significant New Rules (SNURS)
<b>6A:</b>	Commercial Chemical Control Rules
<b>8A:</b>	Toxic Substances Subject To Information Rules on Production
<b>8A CAIR:</b>	Comprehensive Assessment Information Rules - (CAIR)
<b>8A PAIR:</b>	Preliminary Assessment Information Rules - (PAIR)
<b>8C:</b>	Records of Allegations of Significant Adverse Reactions
<b>8D:</b>	Health and Safety Data Reporting Rules
<b>8D TERM:</b>	Health and Safety Data Reporting Rule Terminations

**Other Important Lists:**

<b>CWA NPDES:</b>	EPA Clean Water Act NPDES Permit Chemical
<b>CAA HAP:</b>	EPA Clean Air Act Hazardous Air Pollutant
<b>CAA ODC:</b>	EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
<b>CA PROP 65:</b>	California Proposition 65

**16. Other Information****Company Policy or Disclaimer**

For research use only, not for human or veterinary clinical use.

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

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Supersedes Revision: 04/20/2001  
Date Created: 04/20/2001

## 1. Product and Company Identification

**Product Code:** 70340  
**Product Name:** SC-560  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Inhibitors  
**CAS Number:** 188817-13-2  
**Synonyms:** 5-(4-chlorophenyl)-1-(4-methoxyphenyl)-3-(trifluoromethyl)-1H-pyrazole

## 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. SC-560	188817-13-2	100.0 %	No data.	No data.	No data.

## 3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** Causes eye, skin, or respiratory system irritation.  
 Irritant.  
 Material is irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.  
 The toxicological properties of this compound have not been fully evaluated.  
**Signs and Symptoms Of Exposure:** No data available.

## 4. First Aid Measures

**Emergency and First Aid Procedures:**  
 If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
 If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
 In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
 In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

## 5. Fire Fighting Measures

**Flash Pt:** No data.  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** No data.  
**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
**Flammable Properties and Hazards:** Emits toxic fumes under fire conditions.  
**Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.

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**Unsuitable Extinguishing Media:** No data available.

### 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).  
Vacuum or sweep up material and place in disposal container.  
Avoid raising dust.  
After removal, ventilate contaminated area and flush thoroughly with water.

### 7. Handling and Storage

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Handling:** Avoid breathing (dust, vapor, mist, gas).  
Avoid contact with eyes, skin, and clothing.  
Avoid prolonged or repeated exposure.  
Do not reuse this container.  
Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Storing:** Keep tightly closed.  
Store at correct temperature.

### 8. Exposure Controls/Personal Protection

**Protective Equipment Summary - Hazard Label Information:** Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood

**Respiratory Equipment (Specify Type):** Government approved respirator as conditions warrant.

**Eye Protection:** Safety glasses

**Protective Gloves:** Latex disposable gloves

**Other Protective Clothing:** Lab coat

**Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance Practices:** Do not take internally.  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Wash thoroughly after handling.

### 9. Physical and Chemical Properties

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

**Melting Point:** No data.

**Boiling Point:** No data.

**Autoignition Pt:** No data.

**Flash Pt:** No data. Method:

**Explosive Limits:** LEL: No data. UEL: No data.

**Specific Gravity (Water = 1):** No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Evaporation Rate (vs Butyl Acetate=1):** No data.

**Solubility in Water:** 1.2 mg/ml\* at 25.0 C

**Other Solubility Notes:** \*DMF:PBS pH 7.2 (1:1), sol. in EtOH, DMSO, & DMF

**Percent Volatile:** N.A.

**Corrosion Rate:** No data.

**Formula:** C17H12ON2CIF3

**Molecular Weight:** 352.70

# MATERIAL SAFETY DATA SHEET

## SC-560

Page: 3  
 Printed: 08/17/2005  
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 Supersedes Revision: 04/20/2001

**pH:** No data.  
**Appearance and Odor:** A crystalline solid

### 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [ X ]  
**Conditions To Avoid - Instability:** protect from moisture  
**Incompatibility - Materials To Avoid:** strong oxidizing agents  
**Hazardous Decomposition Or Byproducts:** carbon dioxide  
 carbon monoxide  
 hydrogen chloride gas  
 hydrogen fluoride  
 nitrogen oxides  
**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]  
**Conditions To Avoid - Hazardous Polymerization:** No data available.

### 11. Toxicological Information

**Toxicological Information:** The toxicological effects of this compound have not been thoroughly studied.  
**Carcinogenicity/Other Information:** No data available.  
**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

### 12. Ecological Information

**Ecological Information:** Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

**Waste Disposal Method:** Dispose in accordance with local, state and federal regulations.

### 14. Transport Information

**LAND TRANSPORT (US DOT)**  
**DOT Proper Shipping Name:** No data available.  
**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### 15. Regulatory Information

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. SC-560	188817-13-2	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. SC-560	188817-13-2	No	No	No	No

**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

- Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.
- Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.
- Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.
- Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

- 5A(2):** Chemical Subject to Significant New Rules (SNURS)
- 6A:** Commercial Chemical Control Rules
- 8A:** Toxic Substances Subject To Information Rules on Production
- 8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)
- 8A PAIR:** Preliminary Assessment Information Rules - (PAIR)
- 8C:** Records of Allegations of Significant Adverse Reactions

# MATERIAL SAFETY DATA SHEET

## SC-560

Page: 4

Printed: 08/17/2005

Revision: 08/17/2005

Supercedes Revision: 04/20/2001

**8D:** Health and Safety Data Reporting Rules  
**8D TERM:** Health and Safety Data Reporting Rule Terminations

### Other Important Lists:

**CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical  
**CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant  
**CAA ODC:** EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)  
**CA PROP 65:** California Proposition 65

## 16. Other Information

### Company Policy or Disclaimer

For research use only, not for human or veterinary clinical use.

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Printed: 08/17/2005  
Revision: 08/17/2005  
Supersedes Revision: 12/14/1999  
Date Created: 06/27/1996

## 1. Product and Company Identification

**Product Code:** 70590  
**Product Name:** NS-398  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Inhibitors  
**CAS Number:** 123653-11-2  
**Synonyms:** N-[2-(cyclohexyloxy)-4-nitrophenyl]-methanesulfonamide

## 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. NS-398	123653-11-2	100.0 %	No data.	No data.	No data.

## 3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
 May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 The toxicological properties of this compound have not been fully evaluated.  
**Signs and Symptoms Of Exposure:** No data available.

## 4. First Aid Measures

**Emergency and First Aid Procedures:** If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
 If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
 In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
 In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

## 5. Fire Fighting Measures

**Flash Pt:** No data.  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** No data.  
**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
**Flammable Properties and Hazards:** Emits toxic fumes under fire conditions.  
**Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.  
**Unsuitable Extinguishing Media:** No data available.

### 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).  
Vacuum or sweep up material and place in disposal container.  
Avoid raising dust.  
After removal, ventilate contaminated area and flush thoroughly with water.

### 7. Handling and Storage

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Handling:** Avoid breathing (dust, vapor, mist, gas).  
Avoid contact with eyes, skin, and clothing.  
Avoid prolonged or repeated exposure.  
Do not reuse this container.  
Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Storing:** Keep tightly closed.  
Store at correct temperature.

### 8. Exposure Controls/Personal Protection

**Protective Equipment Summary - Hazard Label Information:** Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood

**Respiratory Equipment (Specify Type):** No data available.

**Eye Protection:** Safety glasses

**Protective Gloves:** Latex disposable gloves

**Other Protective Clothing:** Lab coat

**Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance Practices:** Do not take internally.  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Wash thoroughly after handling.

### 9. Physical and Chemical Properties

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

**Melting Point:** 136.00 C - 137.00 C

**Boiling Point:** No data.

**Autoignition Pt:** No data.

**Flash Pt:** No data. Method:

**Explosive Limits:** LEL: No data. UEL: No data.

**Specific Gravity (Water = 1):** No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Evaporation Rate (vs Butyl Acetate=1):** No data.

**Solubility in Water:** 4 mg/ml\* at 25.0 C

**Other Solubility Notes:** \*Ethanol:PBS pH 7.2 (1:1), sol. in EtOH, DMSO, & DMF

**Percent Volatile:** N.A.

**Corrosion Rate:** No data.

**Formula:** C13H18N2O5S

**Molecular Weight:** 314.40

**pH:** No data.

**Appearance and Odor:** A crystalline solid

### 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [ X ]

**Conditions To Avoid - Instability:** No data available.

**Incompatibility - Materials To Avoid:** strong oxidizing agents

**Hazardous Decomposition Or Byproducts:** carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides

**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid - Hazardous Polymerization:** No data available.

### 11. Toxicological Information

**Toxicological Information:** The toxicological effects of this compound have not been thoroughly studied.

**Carcinogenicity/Other Information:** No data available.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

### 12. Ecological Information

**Ecological Information:** Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

**Waste Disposal Method:** Dispose in accordance with local, state and federal regulations.

### 14. Transport Information

**LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name:** No data available.

**Additional Transport Information:** Dispose in accordance with local, state and federal regulations.

### 15. Regulatory Information

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. NS-398	123653-11-2	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. NS-398	123653-11-2	No	No	No	No

**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

**Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.

**Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.

**Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

**Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

**5A(2):** Chemical Subject to Significant New Rules (SNURS)

**6A:** Commercial Chemical Control Rules

**8A:** Toxic Substances Subject To Information Rules on Production

**8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)

**8A PAIR:** Preliminary Assessment Information Rules - (PAIR)

**8C:** Records of Allegations of Significant Adverse Reactions

**8D:** Health and Safety Data Reporting Rules

**8D TERM:** Health and Safety Data Reporting Rule Terminations

**Other Important Lists:**

# MATERIAL SAFETY DATA SHEET

## NS-398

Page: 4

Printed: 08/17/2005

Revision: 08/17/2005

Supersedes Revision: 12/14/1999

<b>CWA NPDES:</b>	EPA Clean Water Act NPDES Permit Chemical
<b>CAA HAP:</b>	EPA Clean Air Act Hazardous Air Pollutant
<b>CAA ODC:</b>	EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
<b>CA PROP 65:</b>	California Proposition 65

### 16. Other Information

#### Company Policy or Disclaimer

For research use only, not for human or veterinary clinical use.

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# MATERIAL SAFETY DATA SHEET

## Valeryl Salicylate

Page: 1

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Printed: 08/17/2005  
Revision: 08/17/2005  
Supersedes Revision: 04/25/2003  
Date Created: 06/27/1996

### 1. Product and Company Identification

**Product Code:** 70670  
**Product Name:** Valeryl Salicylate  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Inhibitors  
**CAS Number:** 64206-54-8  
**Synonyms:** 2-[(1-oxopentyl)oxy]-benzoic acid; 2-Valeryloxybenzoic acid;

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. Valeryl Salicylate	64206-54-8	100.0 %	No data.	No data.	No data.

### 3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.  
The toxicological properties of this compound have not been fully evaluated.  
**Signs and Symptoms Of Exposure:** No data available.

### 4. First Aid Measures

**Emergency and First Aid Procedures:** If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

### 5. Fire Fighting Measures

**Flash Pt:** No data. Method Used: See note below  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** No data.  
**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
**Flammable Properties and Hazards:** Emits toxic fumes under fire conditions.  
**Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.  
**Unsuitable Extinguishing Media:** No data available.

# MATERIAL SAFETY DATA SHEET

## Valeryl Salicylate

Page: 2

Printed: 08/17/2005

Revision: 08/17/2005

Supercedes Revision: 04/25/2003

### 6. Accidental Release Measures

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear a NIOSH/MSHA approved self-contained breathing apparatus and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).  
Vacuum or sweep up material and place in disposal container.  
Avoid raising dust.  
After removal, ventilate contaminated area and flush thoroughly with water.

### 7. Handling and Storage

**Hazard Label Information:** Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Handling:** Avoid breathing (dust, vapor, mist, gas).  
Avoid contact with eyes, skin, and clothing.  
Avoid prolonged or repeated exposure.  
Do not reuse this container.  
Use with adequate ventilation.  
Wash thoroughly after handling.

**Precautions To Be Taken in Storing:** Keep tightly closed.  
Store at correct temperature.

### 8. Exposure Controls/Personal Protection

**Protective Equipment Summary - Hazard Label Information:** Eye wash station in work area Lab coat Latex disposable gloves Safety glasses Safety shower in work area Vent Hood

**Respiratory Equipment (Specify Type):** No data available.

**Eye Protection:** Safety glasses

**Protective Gloves:** Latex disposable gloves

**Other Protective Clothing:** Lab coat

**Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance Practices:** Do not take internally.  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Wash thoroughly after handling.

### 9. Physical and Chemical Properties

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

**Melting Point:** 86.00 C - 87.00 C

**Boiling Point:** No data.

**Autoignition Pt:** No data.

**Flash Pt:** No data. Method: See note below

**Explosive Limits:** LEL: No data. UEL: No data.

**Specific Gravity (Water = 1):** No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Evaporation Rate (vs Butyl Acetate=1):** No data.

**Solubility in Water:** > 6 mg/ml\* at 25.0 C

**Other Solubility Notes:** \*PBS pH 7.2, sol. in DMF, DMSO & EtOH

**Percent Volatile:** No data.

**Corrosion Rate:** No data.

**Formula:** C<sub>12</sub>H<sub>14</sub>O<sub>4</sub>

**Molecular Weight:** 222.20

**pH:** No data.

**Appearance and Odor:** A crystalline solid.

# MATERIAL SAFETY DATA SHEET

## Valeryl Salicylate

### 10. Stability and Reactivity

**Stability:** Unstable [ ] Stable [ X ]

**Conditions To Avoid - Instability:** No data available.

**Incompatibility - Materials To Avoid:** strong oxidizing agents

**Hazardous Decomposition Or Byproducts:** carbon dioxide  
carbon monoxide

**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid - Hazardous Polymerization:** No data available.

### 11. Toxicological Information

**Toxicological Information:** The toxicological effects of this compound have not been thoroughly studied.

**Carcinogenicity/Other Information:** No data available.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

### 12. Ecological Information

**Ecological Information:** Runoff from fire control or dilution water may cause pollution.

### 13. Disposal Considerations

**Waste Disposal Method:** Dispose in accordance with local, state and federal regulations.

### 14. Transport Information

**LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name:** No data available.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### 15. Regulatory Information

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Valeryl Salicylate	64206-54-8	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Valeryl Salicylate	64206-54-8	No	No	No	No

**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

**Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.

**Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.

**Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

**Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

**5A(2):** Chemical Subject to Significant New Rules (SNURS)

**6A:** Commercial Chemical Control Rules

**8A:** Toxic Substances Subject To Information Rules on Production

**8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)

**8A PAIR:** Preliminary Assessment Information Rules - (PAIR)

**8C:** Records of Allegations of Significant Adverse Reactions

**8D:** Health and Safety Data Reporting Rules

**8D TERM:** Health and Safety Data Reporting Rule Terminations

**Other Important Lists:**

**CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical

**CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant

# MATERIAL SAFETY DATA SHEET

## Valeryl Salicylate

Page: 4

Printed: 08/17/2005

Revision: 08/17/2005

Supercedes Revision: 04/25/2003

**CAA ODC:**

EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)

**CA PROP 65:**

California Proposition 65

### 16. Other Information

#### Company Policy or Disclaimer

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# MATERIAL SAFETY DATA SHEET

## Resveratrol

Page: 1

Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108

Printed: 08/17/2005  
Revision: 08/17/2005  
Supersedes Revision: 07/02/1998  
Date Created: 02/09/1998

### 1. Product and Company Identification

**Product Code:** 70675  
**Product Name:** Resveratrol  
**Manufacturer Information**  
**Company Name:** Cayman Chemical Company  
**Emergency Contact:** Cayman Chemical Company (800)364-9897  
**Information:** Cayman Chemical Company (734)971-3335  
**Chemical Family:** Inhibitors  
**CAS Number:** 501-36-0  
**Synonyms:** (E)-5-[2-(4-hydroxyphenyl)ethenyl]-1,3-Benzenediol

### 2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. Resveratrol	501-36-0	100.0 %	No data.	No data.	No data.

### 3. Hazards Identification

**Emergency Overview:** No data available.  
**Route(s) of Entry:** Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection  
**Potential Health Effects (Acute and Chronic):** Material may be irritating to the mucous membranes and upper respiratory tract.  
May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.  
The toxicological properties of this compound have not been fully evaluated.  
**Signs and Symptoms Of Exposure:** No data available.

### 4. First Aid Measures

**Emergency and First Aid Procedures:** If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.  
If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.  
In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.  
In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

### 5. Fire Fighting Measures

**Flash Pt:** No data.  
**Explosive Limits:** LEL: No data. UEL: No data.  
**Autoignition Pt:** No data.  
**Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
**Flammable Properties and Hazards:** Emits toxic fumes under fire conditions.  
**Extinguishing Media:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.  
**Unsuitable Extinguishing Media:** No data available.



**10. Stability and Reactivity**

**Stability:** Unstable [ ] Stable [ X ]

**Conditions To Avoid - Instability:** protect from moisture

**Incompatibility - Materials To Avoid:** strong oxidizing agents

**Hazardous Decomposition Or Byproducts:** carbon dioxide  
carbon monoxide

**Hazardous Polymerization:** Will occur [ ] Will not occur [ X ]

**Conditions To Avoid - Hazardous Polymerization:** No data available.

**11. Toxicological Information**

**Toxicological Information:** The toxicological effects of this compound have not been thoroughly studied.

**Carcinogenicity/Other Information:** No data available.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

**12. Ecological Information**

**Ecological Information:** Runoff from fire control or dilution water may cause pollution.

**13. Disposal Considerations**

**Waste Disposal Method:** Dispose in accordance with local, state and federal regulations.

**14. Transport Information**

**LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name:** No data available.

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

**15. Regulatory Information**

**US EPA SARA Title III**

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Resveratrol	501-36-0	No	No	No	No

**US EPA CAA, CWA, TSCA**

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Resveratrol	501-36-0	No	No	No	No

**SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:**

**Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. \* indicates 10000 LB TPQ if not volatile.

**Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. \*\* indicates statutory RQ.

**Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.

**Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

**TSCA (Toxic Substances Control Act) Lists:**

**5A(2):** Chemical Subject to Significant New Rules (SNURS)

**6A:** Commercial Chemical Control Rules

**8A:** Toxic Substances Subject To Information Rules on Production

**8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)

**8A PAIR:** Preliminary Assessment Information Rules - (PAIR)

**8C:** Records of Allegations of Significant Adverse Reactions

**8D:** Health and Safety Data Reporting Rules

**8D TERM:** Health and Safety Data Reporting Rule Terminations

**Other Important Lists:**

**CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical

**CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant

# MATERIAL SAFETY DATA SHEET

## Resveratrol

Page: 4

Printed: 08/17/2005

Revision: 08/17/2005

Supercedes Revision: 07/02/1998

**CAA ODC:**

EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)

**CA PROP 65:**

California Proposition 65

### 16. Other Information

**Additional Information About This Product:** For research use only, not for human or veterinary clinical use.

**Company Policy or Disclaimer**

For research use only, not for human or veterinary clinical use.

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