

MATERIAL SAFETY DATA SHEET

NO-Aspirin 1

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

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1. Product and Company Identification

Product Code: 10005854
Product Name: NO-Aspirin 1
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: 175033-36-0
Synonyms: 2-(acetyloxy)-3-[(nitrooxy)methyl]phenyl ester, benzoic acid; NCX 4016

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA PEL	ACGIH TLV	Other Limits
1. NO-Aspirin 1	175033-36-0	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.
Possible risk of harm to unborn child.
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: Irritating to the skin, eyes, nose, throat, and respiratory tract.

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: No data available.
Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.

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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 [X] Solid

Melting Point:

No data.

Boiling Point:

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:

*DMF:PBS pH 7.2 (1:6), sol. in EtOH, DMSO, & DMF

Percent Volatile:

No data.

Formula:

C₁₆H₁₃NO₇

Molecular Weight:

331.30

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:

No data available.

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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 data for Aspirin is listed below. The effects of NO-Aspirin 1 may or may not be similar. The toxicological effects of this compound have not been thoroughly studied.

Aspirin - Toxicity Data:

Oral (child) LDLO:104 mg/kg

Oral (rat) LD50:200 mg/kg

Intraperitoneal (rat) LD50:340 mg/kg

Oral (mouse) LD50:250 mg/kg

Intraperitoneal (mouse) LD50:167 mg/kg

Subcutaneous (mouse) LD50:1020 mg/kg

Oral (dog) LD50:700 mg/kg

Chronic Toxicological Effects: Aspirin - Investigated as a teratogen and as a mutagen.
Aspirin - May cause reproductive disorders.

Aspirin Chronic Exposure:

Effects on embryo or fetus (extra embryonic structures)

Effects on embryo or fetus (fetal death)

Effects on embryo or fetus (fetotoxicity)

Effects on fertility (other measures of fertility)

Effects on fertility (pre-implantation mortality)

Effects on fertility (post-implantation mortality)

Effects on newborn (apgar score)

Effects on newborn (biochemical and metabolic)

Effects on newborn (live birth index)

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)

Paternal effects (testes, epidymis, sperm duct)

Specific developmental abnormalities (body wall)

Specific developmental abnormalities (blood and lymphatic system)

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 (other effects to embryo)

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.

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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. NO-Aspirin 1	175033-36-0	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. NO-Aspirin 1	175033-36-0	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

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

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

16. Other Information

Company Policy or Disclaimer

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

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