

Material Safety Data Sheet

Aminophylline

ACC# 98819

Section 1 - Chemical Product and Company Identification

MSDS Name: Aminophylline

Catalog Numbers: AC202560250, AC202561000

Synonyms: Theophyllamine; Theophylline compound with ethylenediamine; 3,7-Dihydro-1,3-dimethyl-1H-purine-2,6-dione compound with 1,2-ethanediamine (2:1); Theophylline ethylenediamine; a bronchodilator and smooth muscle relaxant.

Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
317-34-0	Aminophylline	99	206-264-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to pale yellow powder.

Danger! May cause burns by all exposure routes. Harmful if swallowed. May cause allergic respiratory and skin reaction. Causes gastrointestinal and central nervous system effects. Air sensitive. May cause cardiac disturbances.

Target Organs: Heart, central nervous system, respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects

Eye: May cause eye burns.

Skin: May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause skin burns.

Ingestion: Harmful if swallowed. Ingestion of large amounts may cause systemic effects such as nausea, stomach pain, rapid breathing, sweating, convulsions, coma, cardiovascular collapse and possible death. May cause nausea, vomiting, and diarrhea, possibly with blood. May cause wakefulness and restlessness, irritability, excitement, rapid heart rate, ringing in the ears, anorexia, muscle spasms and convulsions, gastrointestinal irritation, headache, dizziness, seizures, dehydration and fever. Merck Index says "Eventual bloody, syrupy or 'coffee-ground' vomitus, tremors, delirium and coma can occur."

Inhalation: May cause allergic respiratory reaction. May cause effects similar to those described for ingestion.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Store protected from air. Do not breathe dust.

Storage: Store in a cool, dry place. Keep containers tightly closed. Store in air tight containers.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Aminophylline	none listed	none listed	none listed

OSHA Vacated PELs: Aminophylline: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Appearance: white to pale yellow

Odor: ammonia-like

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 269 - 270 deg C

Decomposition Temperature: Not available.

Solubility: Soluble.

Specific Gravity/Density: Not available.

Molecular Formula: C₁₆H₂₄N₁₀O₄

Molecular Weight: 420.43

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Aminophylline dihydrate gradually absorbs carbon dioxide from the air and becomes incompletely soluble due to liberation of theophylline. One gram dissolves in about 5 ml water, but the solution may become turbid upon standing.

Conditions to Avoid: Dust generation, exposure to air.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 317-34-0: XH5600000

LD50/LC50:

CAS# 317-34-0:

Oral, mouse: LD50 = 150 mg/kg;

Oral, rat: LD50 = 243 mg/kg;

Carcinogenicity:

CAS# 317-34-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Corrosive Solid, Basic, Organic, N.O.S.	Corrosive Solid, Basic, Organic, N.O.S.
Hazard Class:	8	8
UN Number:	UN3263	UN3263
Packing Group:	III	III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 317-34-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 317-34-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

R 42/43 May cause sensitization by inhalation and skin contact.

Safety Phrases:

S 23 Do not inhale gas/fumes/vapour/spray.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 317-34-0: No information available.

Canada - DSL/NDSL

CAS# 317-34-0 is listed on Canada's NDSL List.

Canada - WHMIS

This product has a WHMIS classification of D1B, D2B.

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

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997

Revision #7 Date: 6/02/2006

The information above 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. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.