



Safety Data Sheet

Aries 27409

Section 1. Identification

Product Identifier Aries 27409
Synonyms Flocculant
Manufacturer Stock Numbers N/A

Recommended use Water treatment, process aid
Uses advised against N/A

Manufacturer Contact
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Section 2. Hazards Identification

Classification Final product is non-hazardous. - Category N/A

Signal Word

Pictogram

Hazard Statements Final product is not classified as hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

Precautionary Statements

Response IF IN EYES: Rinse eyes with water for 15 minutes, lifting eyelids often. Seek medical attention immediately.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. No hazards which require special fire aid measures. If you feel unwell, seek medical attention.
IF ON SKIN (or hair): Immediately remove contaminated clothing and flush skin thoroughly with water. Wash clothing before reuse. Seek medical attention if irritation persists.
IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. Seek immediate medical attention.

Prevention Avoid contact with eyes, skin and clothing.
Avoid release to the environment.
Do not cut, weld or grind near containers.

	Take any precaution to avoid mixing with oxidizing agents as it may cause exothermic reactions. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Storage	Store away from sources of heat and ignition. Store in a cool, dry place. Do not allow to freeze as it will affect the physical condition and may damage the material.
Disposal	Dispose of contents/containers in accordance with local, state and federal regulations.
General	Spills produce extremely slippery surfaces.
Ingredients of unknown toxicity	0%
Hazards not Otherwise Classified	No Data Available

Section 3. Ingredients

CAS	Ingredient Name	Weight %
124-04-9	Adipic acid	<2%
69011-36-5	Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	<3%
64742-47-8	Distillates, petroleum, hydrotreated light	20% - 30%

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

Eye	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses if present and easy to do, then resume rinsing. Get medical attention immediately.
Ingestion	If swallowed, DO NOT induce vomiting. Rinse mouth and get emergency medical attention. Do not give anything by mouth unless instructed to do so by a poison center or health care provider.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
Skin	Remove contaminated clothing. Wash skin with soap and water. Get medical attention if necessary.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media	Water, water spray, foam, carbon dioxide or dry chemical
Unsuitable Extinguishing Media	None known.
Fire fighting instructions	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Suitable extinguishing media Cool exposed containers with water spray after extinguishing fire.
 Specific hazards Spilled product may cause slippery surface and fall hazard.
 Additional Information Unusual fire and explosion hazards: Thermal decomposition may release oxides of carbon and nitrogen, ammonia, hydrogen chloride. Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

Section 6. Accidental Release Measures

Clean-up Wear a self-contained breathing apparatus and appropriate Personal protection. (See Exposure Controls/Personal Protection section.) Forms smooth, slippery surfaces on floors, posing an accident risk. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container. After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways.

Section 7. Handling and Storage

Handling Wear appropriate PPE when handling, including an approved respirator if mist or vapor levels exceed exposure limits. Avoid contact with eyes, skin, and clothing. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Wash thoroughly after handling. Wash hands before eating, drinking or smoking. Do NOT handle, store or open near an open flame, sources of heat or sources of ignition. Do not cut, grind or weld on or near container. Contaminated surfaces will be extremely slippery. Handle in accordance with good industrial hygiene and safety practice.

Storage Store in a cool dry place. Keep from freezing. Store away from incompatible materials. Emergency eye wash and safety shower should be located nearby.

Additional Information Incompatible materials: Oxidizing agents

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits	Ingredient Name	ACGIH TLV	OSHA PEL	STEL
	Adipic acid	5 mg/m3	N/A	N/A
	Poly(oxy-1,2-ethanediyl), .alpha.-tridecyl-.omega.-hydroxy-, branched	N/A	N/A	N/A
	Distillates, petroleum, hydrotreated light	1200 mg/m3	1200 mg/m3	N/A
Personal Protective Equipment	Goggles, Gloves, Apron			
Engineering controls	Adequate ventilation, eye-wash station and emergency shower.			
Eye protection	Tightly fitting safety goggles.			
Hand/skin protection	Wear chemical resistant gloves and clothing.			
Respiratory protection	Use NIOSH approved respirator in accordance with OSHA respiratory protection requirements if airborne concentrations exceed published exposure limits (29 CFR 1910.134).			

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Milky/Viscous

Odor	Aliphatic
Odor Threshold	No data available.
Solubility	Completely miscible
Partition coefficient Water/n-octanol	Not applicable
VOC%	N/A
Viscosity	>20.5 mm ² /s @ 40 C
Specific Gravity	N/A
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	Does not flash
FP Method	N/A
Ph	4 - 6 @ 5 g/L
Melting Point	<5 C
Boiling Point	>100 C
Boiling Range	No data available
LEL	N/A
UEL	N/A
Evaporation Rate	No data available
Flammability	Not applicable
Decomposition Temperature	>150 C
Auto-ignition Temperature	Not applicable
Vapor Pressure	2.3 kPa @ 20 C
Vapor Density	0.804 g/L @ 20 C

Additional Information Specific gravity = 1.03-1.05

Section 10. Stability and Reactivity

Chemical stability	Stable under normal conditions of storage and handling.
Hazardous polymerization	Hazardous polymerization will not occur.
Additional Information	-Conditions to avoid: Protect from frost, heat and sunlight. Store away from sources of heat and ignition. Do not cut, grind or weld near containers. -Materials to avoid: Oxidizing agents may cause exothermic reactions. -Hazardous decomposition products: Carbon and nitrogen oxides, ammonia, hydrogen chloride gas. Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

Section 11. Toxicological Information

Likely routes of exposure	Skin, Eye
Eye contact	May cause eye irritation.
Skin contact	May cause mild irritation.
Ingestion	Virtually nontoxic after a single ingestion.
Inhalation	Material is not expected to be harmful if inhaled.
Aspiration hazard	Not classified.
Sensitization	Not classified.
Carcinogenicity	No components have been identified as carcinogenic by OSHA, NTP or IARC.
Embryotoxicity	No information available.
Mutagenicity	Not classified.
Reproductive toxicity	Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity-repeated exposure Not classified.

Additional Information Acute Toxicity Data:
 -Product
 LD50/oral/rat: > 5,000 mg/kg
 LD50/dermal/rat: > 5,000 mg/kg
 -Distillates (petroleum), hydrotreated light (64742-47-8)
 LD50/oral/rat: > 5,000 mg/kg (OECD 401)
 LD50/dermal/rabbit: > 5,000 mg/kg (OECD 402)
 LC50/inhalation/4hr/rat = 4,951 mg/m3 (OECD 403)
 -Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched (69011-36-5)
 LD50/oral/rat = 200-300 mg/kg
 LD50/dermal/rabbit > 2,000 mg/kg
 LC50/Inhalation: No data available.
 -Adipic acid (124-04-9)
 LD50/Oral/Rat: >2,000 mg/kg
 LD50/Dermal/Rabbit: >2,000 mg/kg
 LC50/Inhalation/Rat/4hr: >7.7 mg/L

Section 12. Ecological Information

Bioaccumulative potential This product is not expected to bioaccumulate.

Persistence and Degradation Readily biodegradable.

Hydrolysis At natural pHs (>6), the polymer degrades due to the hydrolysis to more than 70% in 28 days. The hydrolysis products are not harmful to aquatic organisms.

Mobility No information available.

Additional Information Aquatic toxicity data:
 -Fish: LC50/Fish/96hr: 10-100 mg/L (Estimated)
 -Invertebrates: EC50/Daphnia magna/48hr: 10-100 mg/L (Estimated)
 -Algae: Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution, which invalidates the test.

Section 13. Disposal

Disposal Dispose of in accordance with federal, state and local regulations. Do not discharge into sewer or surface water.

Section 14. Transport Information

UN Number N/A

UN Proper Shipping Name Not classified as dangerous in the meaning of transport regulations.

DOT Classification N/A

Packing Group N/A

Section 15. Regulatory Information

OSHA Hazard Communication Status None.

TSCA	The ingredients of this product are either listed on or exempt from listing on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.
SARA Section 313	Hazardous Component(s) subject to reporting under 40 CFR 372(SARA Title III, Sec. 313): None.
Additional Information	<p>FEDERAL REGULATIONS</p> <p>-CERCLA Hazardous Substances List (40 CFR 302.4): Adipic acid (124-04-9), RQ = 5,000 lbs</p> <p>STATE REGULATIONS</p> <p>-California Proposition 65: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm: Acrylamide (79-06-1), <0.01% by wt.</p>

Section 16. Other Information

Revision Date	8/5/2015
Version Number	1
HMIS	Health - 0; Flammability - 1; Reactivity - 0
NFPA	Health - 0; Flammability - 1; Reactivity - 0
HMIS and NFPA Rating Scale	Minimal - 0; Slight - 1; Moderate - 2; Serious - 3; Severe - 4
Reason for Revision	New format in accordance with GHS SDS guidelines.
Disclaimer	While Aries Chemical Inc. believes the data set forth herein is accurate as of the date hereof, Aries Chemical makes no warranty with respect thereto and expressly disclaims all liability for refinance thereon of such data and is offered solely for your consideration, investigation and verification.