

Safety Data Sheet

Section 1

Identification of the Substance and of the Supplier

1.1 Product Identifier

Product Name/Identification:	TPH C40A (FL)
Synonyms:	Cationic Polymer
Product Code:	Not applicable
Formula:	$(C_8H_{16}NCl)_n$

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advices Against

Relevant Identified Uses:	Process aid for industrial applications
Uses Advised Against:	None known

1.3 Details of the Supplier of the SDS

Manufacturer/Supplier:	Tons Per Hour, Inc.
Street Address:	8717 Humble Westfield Rd.
City, State and Zip Code:	Humble, TX 77338
Customer Service Telephone:	916-663-3800

1.4 Emergency Telephone Number

Emergency Phone Number:	916-663-3800
Hours Available:	24/7

Section 2

Hazards Identification

2.1 Classification of the Substance

Spills produce extremely slippery surfaces. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Section 3 Composition/Information on Ingredients

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200. While this material has a low level of toxicity, good industrial hygiene practices are encouraged to minimize exposure.

Chemical Name	CAS-No	EC-No	Classification	Weight %
Polydiallyldimethylammoniumchloride	26062-79-3	-	R52/53	20-50

Section 4 First Aid Measures

4.1 Description of First Aid Measures

Inhalation:	No hazards which require special first aid measures
Skin Contact:	Wash with water and soap as a precaution. In case of persistent skin irritation, consult a physician
Eye Contact:	Rinse thoroughly with plenty of water, also under the eyelids. In case of persistent eye irritation, consult a physician
Ingestion:	The product is not considered toxic based on studies on laboratory animals

4.2 Indication of Any Immediate Medical Attention and Special Treatment Needed

Seek first aid or call a doctor or Poison Control Center if contact with eyes occurs and irritation remains after rinsing.

Section 5 Firefighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media:	Dry chemical, carbon dioxide (CO ₂), water spray
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5.2 Special Hazards Arising From the Substance or Mixture

Hazardous Combustion Products:	None known.
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5.3 Advice for Firefighters

Special Protective Equipment and Precautions for Firefighters:	No special protective equipment required.
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Section 6 Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions/Protective Equipment:	For personal protection see Section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Emergency procedures:	Use scooping, water spraying/flushing/misting or ventilated vacuum cleaning systems to clean up spills. Do not use pressurized air.

6.2 Environmental precautions

Environmental precautions:	Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
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6.3 Methods and Material for Containment and Cleaning Up

Methods and materials for containment and cleaning up:	Do not flush with water. Dam up. Soak up with inert absorbent material. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. After cleaning flush away traces with water.
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See Sections 8 and 13 for additional information on exposure controls and disposal.

Section 7 Handling and Storage

7.1 Precautions for Safe Handling

Avoid contact with skin, eyes, and clothing. When Preparing the working solution ensure that there is adequate ventilation. Do not breathe vapours or spray mist. When using, do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry, cool place (0-35°C). Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

Section 8
Exposure Controls/Personal Protection

8.1 Control Parameters

Contains no substances with occupational exposure limit values. These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

8.2 Exposure Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

8.2.1 Engineering Controls

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

8.2.2 Personal Protective Equipment (PPE)

Respiratory protection:	In case of insufficient ventilation wear suitable respiratory equipment.
Eye and face protection:	Safety glasses with side shields. Do not wear contact lenses where this product is used.
Hand and skin protection:	Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely. Rubber gloves for hands.

Section 9
Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Property: Value	Property: Value
Appearance (physical state, color, etc.): Liquid, Amber	Upper/lower flammability or explosive limits: Not applicable
Odor: Slight	Vapor Pressure (Pa): Not determined
Odor threshold: Not applicable	Vapor Density: Not determined
pH (25 °C): 5-7	Specific gravity or relative density: 1.02-1.06
Melting point/freezing point (°C): -3	Water Solubility: Completely miscible
Initial boiling point and boiling range (°C): (>)212 °F / 100 °C	Partition coefficient: n-octane/water: Not determined
Flash point (°C): > 100	Auto ignition temperature (°C): Not applicable
Evaporation rate: Not determined	Decomposition temperature (°C): Not determined
Flammability (solid, gas): Not combustible	Viscosity: Not determined

9.2 Other Information

Section 10
Stability and Reactivity

10.1 Reactivity:	The material is an inert, inorganic material primarily composed of elemental oxides.
10.2 Chemical stability:	The material is stable under normal use conditions.
10.3 Possibility of hazardous reactions:	Product will not undergo hazardous polymerization
10.4 Conditions to avoid:	Oxidizing agents may cause exothermic reactions
10.5 Incompatible materials:	Aluminum, copper, iron, strong mineral acids, strong oxidizing agents
10.6 Hazardous decomposition products:	Hydrogen chloride gas, nitrogen oxides (NO _x), carbon oxides

Section 11 Toxicological Information

11.1 Information on Toxicological Effects

Endpoint	Data
Acute oral toxicity	LD 50: > 2,000 mg/kg Species: Rat
Acute inhalation toxicity	This product is not expected to be toxic by inhalation
Skin corrosion/irritation	LD50 / Dermal / Rabbit
Eye damage/irritation	May cause slight eye irritation
Sensitisation	The results of testing on human volunteers (HIPT) showed this material to be non-sensitizing.
Chronic Toxicity	A one-year feeding study on dogs did not reveal adverse health effects. A one-year feeding study on rats did not reveal adverse health effects.
Other information	Not mutagenic in AMES tests. Not mutagenic in micronucleus test on mice. Not teratogenic, NOEL = 25 mg/kg. A multigeneration study in rats show no reproductive / developmental toxicity at a dose of 125 mg/kg/day.

Section 12 Ecological Information

12.1 Toxicity

Fish	LC 50: >10 mg/l Exposure time: 96 h
Daphnia and other aquatic organisms	EC 50: >10 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

Toxicity to 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 tests.

12.2 Persistence and Degradability

Not readily biodegradable

12.3 Bioaccumulative Potential

Does not bioaccumulate.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB Assessment

No data available.

12.6 Other Adverse Effects

None known.

Section 13 Disposal Considerations

Rinse empty containers with water and use the rinse-water to prepare the working solution. Can be landfilled or incinerated, when in compliance with local regulations.

Section 14 Transport Information

Regulatory entity: U.S. DOT	Shipping Name:	Not Regulated
	Hazard Class:	Not Regulated
	ID Number:	Not Regulated
	Packing Group:	Not Regulated

Section 15 Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Mixture

- **R52/53:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **S61-** Avoid release to environment. Refer to special instructions / safety data sheets.

International Inventories:

- European Union (EINECS / ELINGS): All components of this product are either listed on the inventory or are exempt from listing.
- USA (TSCA): All components of this product are either listed on the U.S. Toxic substance control act (TSCA) inventory of chemicals or are otherwise compliant with the TSCA regulations.
- Canada (DSL): All componenets of this product are either listed on the inventory or are exempt from the listing.
- Australia (AICS): All components of this product are either listed on the inventory or are exempt from the listing.
- Japan (ENCS): All components of this product are either listed on the inventory or are exempt from the listing.
- Kora (ECL): All compenets of this product are either listed on the inventory or are exempt from the listing.

Section 16

Other Information, Including Date of Preparation or Last Revision

16.1 Indication of Changes

Date of preparation or last revision: May 29, 2015

DISCLAIMER:

This SDS has been prepared in accordance with the Hazard Communication Rule 29 CFR 1910.1200. Information herein is based on data considered to be accurate as of date prepared. No warranty or representation, express or implied, is made as to the accuracy or completeness of this data and safety information. No responsibility can be assumed for any damage or injury resulting from abnormal use, failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.