

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

**Product Name:** SUPERFLOC® C-491KVP  
**Product Description:** Cationic polyacrylamide  
**Intended/Recommended Use:** Flocculant

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EMERGENCY PHONE: IN THE NETHERLANDS: 0181-295500; OUTSIDE THE NETHERLANDS: 31-181-295500

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### 2. HAZARDS IDENTIFICATION

#### HUMAN AND ENVIRONMENTAL HAZARDS

None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### HAZARDOUS INGREDIENTS

Component / CAS No.	% (w/w)	EC-No	Symbol / Risk Phrases
Adipic acid 124-04-9	~ 4.5	204-673-3	Xi; R36

See Section 16 for Ingredient Risk Phrase Text

### 4. FIRST AID MEASURES

#### Ingestion:

Material is not expected to be harmful by ingestion. No specific first aid measures are required.

#### Skin Contact:

Wash immediately with plenty of water and soap.

#### Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes.

#### Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

### Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

### Special Hazards:

Dust may be explosive if mixed with air in critical proportions and in the presence of a source of ignition.

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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

### Methods For Cleaning Up:

Slippery when wet. Sweep up into containers for disposal. Flush spill area with water. If slipperiness remains apply more dry-sweeping compound. Prevent liquid entering sewers.

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## 7. HANDLING AND STORAGE

### HANDLING

Maintain good housekeeping to control dust accumulations.

### STORAGE

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment. Material is hygroscopic and should not be exposed to moisture in order to maintain product integrity.

**Storage Temperature:** Room temperature

**Reason:** Integrity.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### CONTROL PARAMETERS - Limits

#### Adipic acid 124-04-9

The Netherlands: MAC (Maximal Aanvaarde Concentratie)

5 mg/m<sup>3</sup> (MAC)

Denmark: Graensevaerdier

5 mg/m<sup>3</sup> (TWA)

ACGIH (TLV)

5 mg/m<sup>3</sup> (TWA)

### Engineering Measures:

Engineering controls are not usually necessary if good hygiene practices are followed.

### Respiratory Protection:

Where exposures are below the established exposure limit, no respiratory protection is required.

Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

### Eye Protection:

Wear eye/face protection.

**Skin Protection:**

Avoid skin contact.

Wear impermeable gloves.

**Additional Advice:**

Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Color:</b>	off white
<b>Appearance:</b>	crystalline powder
<b>Odor:</b>	none
<b>Boiling Point:</b>	Not applicable
<b>Melting Point:</b>	Not available
<b>Vapor Pressure:</b>	Not applicable
<b>Specific Gravity/Density:</b>	0.75
<b>Vapor Density:</b>	Not applicable
<b>Percent Volatile (% by wt.):</b>	7
<b>pH:</b>	3 - 5(0.5% aqueous solution)
<b>Saturation In Air (% By Vol.):</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Solubility In Water:</b>	Limited by viscosity
<b>Volatile Organic Content (EU):</b>	Not available
<b>Flash Point:</b>	Not applicable
<b>Flammable Limits (% By Vol):</b>	Not applicable
<b>Autoignition Temperature:</b>	>150 °C
<b>Decomposition Temperature:</b>	>150 °C
<b>Partition coefficient (n-octanol/water):</b>	Not applicable

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## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Conditions To Avoid:</b>	None known
<b>Polymerization:</b>	Will not occur
<b>Conditions To Avoid:</b>	None known
<b>Materials To Avoid:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Carbon dioxide Carbon monoxide (CO) Ammonia (NH3) oxides of nitrogen oxides of sulfur (includes sulfur di and tri oxides)

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## 11. TOXICOLOGICAL INFORMATION

**POTENTIAL HEALTH EFFECTS**

None

**PRODUCT TOXICITY INFORMATION**

**ACUTE TOXICITY DATA**

oral	rat	Acute LD50>5,000 mg/kg	
dermal	rabbit	Acute LD50	>2,000 mg/kg
inhalation	rat	Acute LC50	>20.0 mg/l

**LOCAL EFFECTS ON SKIN AND EYE**

Acute Irritation	skin	Not irritating
Acute Irritation	eye	Not irritating

**ALLERGIC SENSITIZATION**

Sensitization	dermal	No data
Sensitization	inhalation	No data

**GENOTOXICITY****Assays for Gene Mutations**

Ames Salmonella Assay	No data
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**HAZARDOUS INGREDIENT TOXICITY DATA****ACUTE TOXICITY DATA**

Adipic acid	
oral (gavage) rat	Acute LD50 > 11000 mg/kg

**LOCAL EFFECTS ON SKIN AND EYE**

Adipic acid	
Acute Eye Irritation rabbit	Irritating
Acute Dermal Irritation	Not irritating

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## 12. ECOLOGICAL INFORMATION

This material is not classified as dangerous for the environment.

The effects on aquatic organisms are due to an external (non-systemic) mode of action, and are significantly reduced (by a factor of 7-20) within 30 minutes due to binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts.

All ecological information provided was conducted on a structurally similar product.

Acute toxicity tests conducted using environmentally representative water gave the following results:

### ALGAE TEST RESULTS

**Test:** Growth Inhibition (OECD 201)

Due to the cationicity of the polymer, an algae growth inhibition test is not appropriate.

### FISH TEST RESULTS

**Test:** Acute toxicity, freshwater (OECD 203)

**Duration:** 96 hr.

**Species:** Zebra Fish (*Brachydanio rerio*)

>1 - 10 mg/l LC50

### INVERTEBRATE TEST RESULTS

**Test:** Acute Immobilization (OECD 202)

**Duration:** 48 hr

**Species:** Water Flea (*Daphnia magna*)

>10 - 100 mg/l EC50

### DEGRADATION

**Test:** CO2 Evolution: Modified Sturm (OECD 301B)

**Duration:** 28 day

This material is not readily biodegradable (OECD 301B), but degradable by hydrolysis. The large polymer size is incompatible with transport across biological membranes and diffusion; the bioconcentration factor is therefore considered to be zero.

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## 13. DISPOSAL CONSIDERATIONS

The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

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## 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

### ADR/RID

Class: Not Applicable/Not Regulated

### IMO

Proper Shipping Name: Not applicable/Not regulated

### ICAO / IATA

Proper Shipping Name: Not applicable/Not regulated

Packing Instructions/Maximum Net Quantity Per Package:

Passenger Aircraft: -

Cargo Aircraft: -

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## 15. REGULATORY INFORMATION

### EU MARKING AND LABELING

**Symbol(s):** None required

### Risk Phrases:

None

### Safety Phrases:

S82 - Spills are very slippery when wet.

### INVENTORY INFORMATION

#### European Union (EU):

All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

#### United States (USA):

All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

**Canada:**

All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

**Australia:** All components of this product are included in the Australian Inventory of Chemical Substances (AICS).

**China:** All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

**Japan:** All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

**Korea:** All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

**Philippines:** All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

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## 16. OTHER INFORMATION

**Reasons for Issue:** New Format

**Component Risk Phrases**

Adipic acid

R36 - Irritating to eyes.

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Richard Moye, Product Regulatory, 1-251-662-1581

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