

# SAFETY DATA SHEET

## SECTION 1. IDENTIFICATION

**Product Name:** Flow Aid  
**Other Means of Identification:** Product Code: CTS PA

**Recommended Product Use:** Admixture for cement based materials  
**Restrictions on Use:** None Known

### Manufacturer/Importer/Supplier/Distributor Information:

**Company:** Con-Spec Industries Ltd.  
**Address:** 9525 - 63 Avenue NW  
Edmonton, Alberta T6E 0G2  
**Contact:** Robert Lummerding  
**Telephone:** 1 (780) 437-6136  
**Fax:** 1 (780) 437-5242  
**E-Mail:** conspec@shaw.ca

**Emergency Telephone:** CANUTEC (613) 996-6666

## SECTION 2. HAZARD(S) IDENTIFICATION

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

**Classification:** Combustible dust

### Label Elements:

**Pictogram:** Not required  
**Signal Word:** Warning

**Hazard Statement:** May form combustible dust concentration in air.

### Hazards Not Otherwise Classified:

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

### Labelling of special preparations (GHS):

Contains formaldehyde.  
This product is capable of releasing formaldehyde into the air. May cause cancer.

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Chemical Identity	CAS Number	Content in Percent (%)*
Formaldehyde	50-00-0	<0.1

**Composition comments:** \*All concentrations are percent by weight unless ingredient is a gas.  
Gas concentrations are in percent by volume.

**SECTION 4. FIRST-AID MEASURES**

**General Advise:** First aid personnel should pay attention to their own safety. Immediately remove contaminated clothing.

**Inhalation:** After inhalation of dust. Keep patient calm, remove to fresh air, seek medical attention.

**Skin Contact:** After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

**Eye Contact:** Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

**Ingestion:** Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control centre or doctor.

**Most Important Symptoms/Effects, Acute and Delayed:**

Symptoms: allergic symptoms

**Immediate Medical Attention and Special Treatment:**

**Note to physician Treatment:** Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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### **SECTION 5. FIRE-FIGHTING MEASURES**

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
<b>Suitable Extinguishing Media:</b>	Foam, water spray, dry powder, carbon dioxide.
<b>Unsuitable Extinguishing Media:</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific Hazards Arising from the Chemical:</b>	Hazards during fire-fighting: Carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black.
<b>Special Protective Equipment and Precautions for Firefighters:</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Special Fire Fighting Procedures:</b>	Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions, Protective Equipment and Emergency Procedures:</b>	Do not breathe dust. Wear eye/face protection. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.
<b>Methods and Material for Containment and Cleaning Up:</b>	For small amounts: Pick up with suitable appliance and dispose of. Dispose of contaminated material as prescribed. For large amounts: Pick up with suitable appliance and dispose of. Dispose of absorbed material in accordance with regulations. Avoid raising dust.
<b>Further accidental release Measures:</b>	Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Non sparking tools should be used.

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### **SECTION 7. HANDLING AND STORAGE**

#### **Precautions for Safe Handling:**

Avoid dust formation. Wear suitable protective clothing and eye/face protection. Avoid inhalation of dusts/mists/vapours. Breathing must be protected when large quantities are decanted without local exhaust ventilation.

#### **Protection against fire and explosion:**

Avoid dust formation. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids (2013 Edition) for safe handling.

#### **Conditions for Safe Storage, Including any Incompatibilities:**

No applicable information available. Suitable materials for containers: High density polyethylene (HDPE). Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.

### **SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

#### **Control Parameters**

#### **Occupational Exposure Limits**

<b>Chemical Name</b>	<b>Type</b>	<b>Exposure Limit Values</b>	<b>Source</b>
Formaldehyde (50-00-0)	STEL	2 ppm	OSHA -PEL
Formaldehyde (50-00-0)	TWA	0.75 ppm	OSHA -PEL
Formaldehyde (50-00-0)	CLV	0.3 ppm	ACGIH TLV

Consult local authorities for provincial or state exposure limits.

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value.

TWA = Time-Weighted Average. STEL = Short-term Exposure Limit. A4 = Not classifiable as a human carcinogen.

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.

OEL = Occupational Exposure Limits. REL: Recommended Exposure Limit

#### **Appropriate Engineering Controls:**

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

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### Individual Protection Measures, such as Personal Protective Equipment

- General Information:** Avoid inhalation of dusts. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Avoid exposure - obtain special instructions before use. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).
- Eye Protection:** Safety glasses with side-shields.
- Skin Protection:** Chemical resistant protective gloves, Manufacturer's directions for use should be observed because of great diversity of types.
- Respiratory:** Wear respiratory protection if ventilation is inadequate.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	
<b>Physical State:</b>	Solid
<b>Form:</b>	Powder
<b>Color:</b>	White to slightly coloured
<b>Odour:</b>	characteristic
<b>Odour Threshold:</b>	No data available.
<b>PH:</b>	~9 - 11.4
<b>Melting Point/Freezing Point:</b>	The product has not been tested.
<b>Initial Boiling Point and Boiling Range:</b>	Not applicable.
<b>Flash Point:</b>	Not applicable.
<b>Evaporation Rate:</b>	Not applicable.
<b>Flammability (solid, gas):</b>	Not highly flammable.
<b>Upper/Lower Limit on Flammability or Explosive Limits</b>	
<b>Flammability limit - upper (%):</b>	Not applicable.
<b>Flammability limit - lower (%):</b>	Not applicable.
<b>Explosive limit - upper (%):</b>	Not applicable.
<b>Explosive limit - lower (%):</b>	Not applicable.
<b>Vapor Pressure:</b>	The product has not been tested.
<b>Vapor Density:</b>	The product is a non-volatile solid.
<b>Bulk Density:</b>	approx. 500 - 800 Kg/m <sup>3</sup>
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Soluble.
<b>Solubility (other):</b>	No data available.
<b>Partition Coefficient (n-octanol/water):</b>	< -4
<b>Auto-ignition Temperature:</b>	approx. 850 °C.
<b>Decomposition Temperature:</b>	No data available.
<b>Viscosity:</b>	Not applicable.

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**SECTION 10. STABILITY AND REACTIVITY**

<b>Reactivity:</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	No dangerous reaction known under conditions of normal use.
<b>Minimum ignition energy:</b>	> 10 kJ, Grain size distribution: 56 µm
<b>Conditions to Avoid:</b>	No applicable information available. Keep dry until use. Avoid contact with incompatible materials. Suitable materials for containers: High density polyethylene (HDPE). Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.
<b>Incompatible Materials:</b>	Strong acids, strong bases, strong oxidizing agents, strong reducing agents.
<b>Hazardous Decomposition Products:</b>	Decomposition or combustion products: Possible separation of formaldehyde in small quantities., The substances/substance groups mentioned are formed by hydrolysis. Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>Likely Routes of Exposure:</b>	Inhalation, Skin Contact, Eye Contact, Ingestion
<b>Symptoms of Exposure:</b>	Allergic symptoms
<b>Acute Toxicity / Effects:</b>	
<b>Acute toxicity</b>	Assessment of acute toxicity: Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion. Based on available Data, the classification criteria are not met. The product has not been tested. The statement has been derived from the properties of the individual components.
<b>Oral:</b>	No applicable information available.
<b>Inhalation:</b>	No applicable information available.
<b>Dermal:</b>	No applicable information available.
<b>Assessment other acute effects:</b>	No applicable information available.
<b>Irritation / corrosion:</b>	Assessment of irritating effects: Not irritating to eyes and skin.

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### **Information on Toxicological Effects Acute Dose Effects**

#### **Numerical Measures of Toxicity:**

**Skin:** Species: rabbit Result: non-irritant Method: OECD Guideline 404

**Eye:** Species: rabbit Result: non-irritant Method: OECD Guideline 405

**Sensitization:** A sensitizing effect on particularly sensitive individuals cannot be excluded.

#### **Chronic Toxicity/Effects**

**Repeated dose toxicity:** No reliable data was available concerning repeated dose toxicity.

#### **Genetic toxicity:**

**Mutagenicity:** The substance was not mutagenic in bacteria.

**Carcinogenicity:** No data available concerning carcinogenic effects.

#### **Information on: Formaldehyde**

*Assessment of carcinogenicity: NTP listed carcinogen The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 (known) human carcinogen based on epidemiological evidence linking formaldehyde exposure to occurrence of nasopharyngeal cancer and leukemia. Current regulatory information is provided in this SDS. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.*

**Reproductive toxicity:** Based on available Data, the classification criteria are not met.

**Teratogenicity:** No data available.

**Experiences in humans:** If this substance comes into close contact with the skin of hypersensitive persons, sensitization might occur.

## **SECTION 12. ECOLOGICAL INFORMATION**

**Aquatic Toxicity:** There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

**Toxicity to fish:** LC50 (48 h) > 560 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

**Aquatic invertebrates:** EC50 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static) Nominal concentration. The product has low solubility in the test medium. An eluate has been tested. Limit concentration test only (LIMIT test). No toxic effects occur within the range of solubility. Analogous: Assessment derived from products with similar chemical character.

#### **Microorganisms/Effect on activated sludge:**

**Toxicity to microorganisms:** bacterium/EC10: 1,800 mg/l

#### **Persistence and degradability:**

**Elimination information:** Not readily biodegradable (by OECD criteria).

**Bioaccumulative potential:** No data available.

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**Mobility in soil:** No data available.**Additional information:** Sum parameter  
Chemical oxygen demand (COD): approx. 360 mg/g  
Biochemical oxygen demand (BOD): 33 mg/g  
Ratio BOD/COD: 9.2 %**Other ecotoxicological advice:** Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Contaminated Packaging:** Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

### SECTION 14. TRANSPORT INFORMATION

**TDG:** Not regulated as dangerous goods.**UN Shipping Name:** Not Regulated  
**Classification:** N/A  
**UN:** N/A  
**Packing Group:** N/A

### SECTION 15. REGULATORY INFORMATION

**WHMIS Classification:** According to Controlled Products Regulations (CPR) (SOR/88-66)  
Not WHMIS controlled.

### SECTION 16. OTHER INFORMATION

**Revision Date:** January 5, 2017**Version #:** 1.0**Notice To Reader:**

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