

# Safety Data Sheet

## Sokalan® DCS

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Version: 3.0

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(30042792/SDS\_GEN\_CA/EN)

### 1. Identification

#### Product identifier used on the label

#### Sokalan® DCS

#### Recommended use of the chemical and restriction on use

Recommended use\*: Raw material for the chemical-technical industry

Recommended use\*: initial product for chemical syntheses; for the production of homopolymerisates and copolymerisates

Unsuitable for use: Not intended for sale to or use by the general public.

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

#### Details of the supplier of the safety data sheet

##### Company:

BASF Canada Inc.

5025 Creekbank Road

Building A, Floor 2

Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

#### Emergency telephone number

##### 24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: (800) 454-COPE (2673)

#### Other means of identification

Chemical family: carboxylic acid

Synonyms: Dicarboxylic Acid Mixture

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### 2. Hazards Identification

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

#### Classification of the product

Eye Dam./Irrit.

1

Serious eye damage/eye irritation

Aquatic Acute

3

Hazardous to the aquatic environment - acute

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### Label elements

Pictogram:



Signal Word:  
Danger

Hazard Statement:

H318 Causes serious eye damage.  
H402 Harmful to aquatic life.

Precautionary Statements (Prevention):

P280 Wear eye and face protection.  
P273 Avoid release to the environment.

Precautionary Statements (Response):

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or physician.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste collection point.

### Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

## 3. Composition / Information on Ingredients

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

carboxylic acids, di, C4-C6  
CAS Number: 68603-87-2  
Content (W/W):  $\geq 100.0$  -  $\leq 100.0\%$   
Synonym: Dicarboxylic acid(C=4-6)

## 4. First-Aid Measures

### Description of first aid measures

#### General advice:

Remove contaminated clothing. Avoid contact with the skin, eyes and clothing.

#### If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Seek medical attention.

#### If on skin:

Wash affected areas thoroughly with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

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### If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

### If swallowed:

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Immediate medical attention required.

### Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

*Information on: carboxylic acids, di, C4-C6*

*Symptoms: Overexposure may cause: corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps*  
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### Indication of any immediate medical attention and special treatment needed

#### Note to physician

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

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## 5. Fire-Fighting Measures

### Extinguishing media

Suitable extinguishing media:  
water spray, dry powder, foam, carbon dioxide

### Special hazards arising from the substance or mixture

Hazards during fire-fighting:  
No particular hazards known.

### Advice for fire-fighters

Protective equipment for fire-fighting:  
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

### Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

### Impact Sensitivity:

Remarks: Substance/product is not impact sensitive at room temperature.

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## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Sources of ignition should be kept well clear. Use breathing apparatus if exposed to vapours/dust/aerosol. Information regarding personal protective measures, see section 8.

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### Environmental precautions

Discharge into the environment must be avoided. Do not empty into drains. Retain and dispose of contaminated wash water.

### Methods and material for containment and cleaning up

For large amounts: Pick up in dry form. Dispose of absorbed material in accordance with regulations.  
For residues: Rinse away with water.

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## 7. Handling and Storage

### Precautions for safe handling

Avoid dust formation. Ensure suitable air extract/ventilation on process machinery and transportation equipment. Ensure thorough ventilation of stores and work areas. Breathing must be protected when large quantities are decanted without local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:  
Dust can form an explosive mixture with air.

### Conditions for safe storage, including any incompatibilities

Segregate from alkalies and alkalizing substances.

Suitable materials for containers: Low density polyethylene (LDPE), glass, Paper/Fibreboard, High density polyethylene (HDPE), Aluminium

Further information on storage conditions: Protect against heat. Containers should be stored tightly sealed in a dry place.

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## 8. Exposure Controls/Personal Protection

No occupational exposure limits known.

### Advice on system design:

Provide local exhaust ventilation to control dust.

### Personal protective equipment

#### Respiratory protection:

Wear a NIOSH-certified (or equivalent) particulate respirator.

#### Hand protection:

Chemical resistant protective gloves

#### Eye protection:

Safety glasses with side-shields. Wear face shield if splashing hazard exists.

#### Body protection:

Impermeable protective clothing, Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

#### General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wash soiled clothing immediately.

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### 9. Physical and Chemical Properties

Form:	flakes	
Odour:	faint specific odour, camphor-like	
Colour:	grey white to yellowish	
pH value:	2.0	
	( 150 g/l, 70 °C)	
melting range:	> 45 - < 120 °C	(Directive 92/69/EEC, A.1)
	( 1,013 hPa)	
Melting point:	No data available.	
Freezing point:	No data available.	
Boiling range:	235 - 337.5 °C	
	( 1,013 hPa)	
	The statements are based on the properties of the individual components.	
Boiling point:	No data available.	
<i>Information on: succinic acid</i>		
Boiling point:	235 °C	
	( 1,013 hPa)	
	Literature data.	
<i>Information on: glutaric acid</i>		
Boiling range:	> 302 - < 304 °C	
	( 1,013 hPa)	
	Literature data.	
<i>Information on: adipic acid</i>		
Boiling point:	337.5 °C	
	( 1,013 hPa)	
	Literature data.	
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Sublimation point:	No applicable information available.	
Flash point:	180 °C	(Directive 92/69/EEC, A.9, closed cup)
Flammability:	not highly flammable	(Directive 92/69/EEC, A.10)
Lower explosion limit:	No data available.	
Upper explosion limit:	No data available.	
Autoignition:	475 °C	(DIN 51794)
Vapour pressure:	4 - 14 mbar	
	( 160 - 180 °C)	
Density:	1.23 g/cm <sup>3</sup>	
	( 20 °C)	
Relative density:	1.36 - 1.56	
	( 15 - 25 °C)	
	Literature data.	
Bulk density:	400 - 600 kg/m <sup>3</sup>	
Partitioning coefficient n-octanol/water (log Pow):	-0.575 - 0.162	(OECD Guideline 107)
	( 25 °C)	
<i>Information on: succinic acid</i>		
Partitioning coefficient n-octanol/water (log Pow):	-0.59	(measured)
	( 25 °C)	
	Literature data.	
<i>Information on: adipic acid</i>		
Partitioning coefficient n-octanol/water (log Pow):	0.093	(measured)
	( 25 °C)	

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### Information on: glutaric acid

Partitioning coefficient n-octanol/water (log Pow):	-0.26 ( 25 °C)	(calculated)
Self-ignition temperature:	not self-igniting	
	not self-igniting	(Directive 92/69/EEC, A.16)
Thermal decomposition:	No data available.	
Viscosity, dynamic:	Study scientifically not justified.	
Particle size:	D50 4.7 mm	(measured)
Solubility in water:	approx. 45 g/l ( 20 °C) approx. 85 g/l ( 30 °C)	
Miscibility with water:	soluble	
Solubility (qualitative):	soluble	
	solvent(s): organic solvents,	
Evaporation rate:	No data available.	

## 10. Stability and Reactivity

### Reactivity

Corrosion to metals:  
No corrosive effect on metal.

Oxidizing properties:  
Based on its structural properties the product is not classified as oxidizing.  
Formation of flammable gases:      Remarks:      Forms no flammable gases in the presence of water.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

Reacts with basic components to generate heat. Dust explosion hazard.

### Conditions to avoid

Avoid dust formation. Avoid deposition of dust.

### Incompatible materials

alkaline reactive substances

### Hazardous decomposition products

Decomposition products:  
Thermal decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Incomplete combustion results in formation of toxic gases, containing mainly carbon monoxide and carbon dioxide.

Thermal decomposition:  
No data available.

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### 11. Toxicological information

#### Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

#### Acute Toxicity/Effects

##### Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. In animal studies the substance is virtually nontoxic after short-term inhalation. Virtually nontoxic after a single skin contact.

##### Oral

Type of value: LD50

Species: rat (male/female)

Value: 6,000 mg/kg (OECD Guideline 401)

##### Inhalation

Type of value: LC0

Species: rat (male/female)

Value: 7.7 mg/l (OECD Guideline 403)

Exposure time: 4 h

The product has not been tested. The statement has been derived from the properties of the individual components.

##### Dermal

Type of value: LD0

Species: rabbit (male/female)

Value: 7,940 mg/kg

##### Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

##### Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. May cause severe damage to the eyes.

##### Skin

Species: rabbit

Result: non-irritant

Method: BASF-Test

##### Eye

Species: rabbit

Result: Risk of serious damage to eyes.

Method: BASF-Test

##### Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Species: guinea pig

Result: Non-sensitizing.

Method: other

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### Aspiration Hazard

No data available.

## **Chronic Toxicity/Effects**

### Repeated dose toxicity

Assessment of repeated dose toxicity: No known chronic effects.

### Genetic toxicity

Assessment of mutagenicity: In the majority of studies performed with microorganisms and in mammalian cell culture, a mutagenic effect was not found. A mutagenic effect was also not observed in in vivo tests.

### Carcinogenicity

Assessment of carcinogenicity: Based on the ingredients there is no suspicion of a carcinogenic effect in humans. Study scientifically not justified.

### Reproductive toxicity

Assessment of reproduction toxicity: Repeated oral uptake of the substance did not cause damage to the reproductive organs.

### Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from the properties of the individual components.

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## **12. Ecological Information**

### **Toxicity**

#### Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product gives rise to pH shifts.

#### Toxicity to fish

LC50 (96 h) 147 - 215 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

LC50 (96 h) 59.5 mg/l, *Brachydanio rerio* (Fish test acute, static)

#### Aquatic invertebrates

EC50 (48 h) 88.4 mg/l, *Daphnia magna* (Directive 84/449/EEC, C.2, static)

EC50 (48 h) 46 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### Aquatic plants

EC50 (72 h) 41.9 mg/l (growth rate), *Scenedesmus subspicatus* (DIN 38412 Part 9, static)

#### Chronic toxicity to fish

Study scientifically not justified.

#### Chronic toxicity to aquatic invertebrates

No observed effect concentration (21 d) 6.3 mg/l, *Daphnia magna* (OECD Guideline 211)



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The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Assessment of terrestrial toxicity

Study scientifically not justified.

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

### Toxicity to microorganisms

DIN EN ISO 8192 aquatic  
activated sludge, industrial/EC20 (30 min): > 100 mg/l

DIN 38412 Part 8 aquatic  
bacterium/EC50 (17 h): 91 mg/l

OECD Guideline 209 aquatic  
activated sludge/EC50 (3 h): 7,910 mg/l

## **Persistence and degradability**

### Assessment biodegradation and elimination (H<sub>2</sub>O)

Readily biodegradable (according to OECD criteria).

### Elimination information

83 % BOD of the ThOD (30 d) (OECD 301D; EEC 92/69, C.4-E) (aerobic, activated sludge, domestic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

78 % BOD of the ThOD (14 d) (OECD 301C; ISO 9408; 92/69/EEC, C.4-F) (aerobic, Inoculum conforming to MITI requirements (OECD 301C))

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

100 % DOC reduction (14 d) (OECD 301E/92/69/EEC, C.4-B) (aerobic, activated sludge, domestic)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### Assessment of stability in water

Study scientifically not justified.

## **Bioaccumulative potential**

### Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

## **Mobility in soil**

### Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

## **Additional information**

### Sum parameter

Chemical oxygen demand (COD): 1,120 mg/g

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Biochemical oxygen demand (BOD) Incubation period 5 d: 850 mg/g

Ratio BOD/COD: 50 - 60 %

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### 13. Disposal considerations

**Waste disposal of substance:**

Must be disposed of or incinerated in accordance with local regulations.

**Container disposal:**

Uncleaned empties should be disposed of in the same manner as the contents. Uncontaminated packaging can be re-used.

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### 14. Transport Information

**Land transport**

TDG

Not classified as a dangerous good under transport regulations

**Sea transport**

IMDG

Not classified as a dangerous good under transport regulations

**Air transport**

IATA/ICAO

Not classified as a dangerous good under transport regulations

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### 15. Regulatory Information

**Federal Regulations**

**Registration status:**

Chemical DSL, CA released / listed

**NFPA Hazard codes:**

Health: 3 Fire: 1 Reactivity: 1 Special:

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### 16. Other Information

**SDS Prepared by:**

BASF NA Product Regulations

SDS Prepared on: 2020/11/09

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring

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the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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