

**MATERIAL SAFETY DATA SHEET****SECTION 1 - MATERIAL IDENTIFICATION AND USE**Product : **YELLOW DCE 20398**Manufacturer's name : **STARCO CONCENTRATES INC.** Telephone number: **514-645-9559**

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Montreal, Qc, Canada

H1B 5L8

Chemical name	Chemical Family	Chemical Formula
Dry compound	Pigment and/or additives	Proprietary mixture
Molecular weight	Trade Name and Synonyms	Material Use
Not applicable	Color/additives concentrates, masterbatch	Coloration of PVC compounds

**SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS**

% Weight	CAS number	Ingredient	Units	Vapor pressure
60-90	1317-65-3	Calcium carbonate	10 mg/m <sup>3</sup>	
0-2	21645-51-2	Aluminum hydroxide		
0-2	7631-86-9	Amorphous silica		
0-10	13463-67-7	Titanium dioxide	TWA :10 mg/m <sup>3</sup> ( OSHA PEEL)	

**SECTION 3 – HAZARDS IDENTIFICATION****Potential Health Effects**

## Acute toxicity

Skin	Non-corrosive and non-sensitizing. Prolonged contact may result in rashes/irritations due to drying of the skin and/or mechanical abrasion related to skin-to-clothing contact or skin-to-skin contact.
Inhalation	Inert nuisance dust. Temporary drying effect and/or irritation of mucous membranes may result from excessive exposure. Exposure to dust may aggravate pre-existing respiratory conditions.
Ingestion	If ingested, do not induce vomiting unless directed to do by medical personnel. Low oral toxicity. Get medical attention.

Chronic Effects	Prolonged dust inhalation may cause silicosis. Prolonged and excessive inhalation of dust may lead to chronic pulmonary disease.
Eyes	Nuisance dust , avoid chronic inhalation.

#### SECTION 4-FIRST AID MEASURES

Eye contact:	In the case of contact with eyes, rinse immediately with plenty of water. If symptoms persist, call a physician.
Skin contact:	Wash skin with soap and water. Use of moisturizing may be helpful.
Ingestion:	No adverse health effects anticipated by this route during proper industrial handling. If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.
Inhalation:	In case product dust is released: Possible discomfort: cough, sneezing. Move victims into fresh air.

#### SECTION 5-FIRE FIGHTING MEASURES

Flash point:	Not flammable.
Suitable extinguishing media:	No fire hazard.
Hazardous combustion products:	No hazardous decomposition products.
Extinguishing media:	Carbon dioxide, water, foam or dry chemical
<b><u>Explosion data</u></b>	
Sensitivity to mechanical impact:	Not applicable
Sensitivity to static discharge	Not applicable
Protective equipment and precautions for firefighters	As any fire, wear self-contained breathing apparatus and full protective gear.
<b><u>NFPA</u></b>	<b>Health Hazard 1 Flammability 0 Stability 0</b>

#### SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid inhalation of dust by arranging adequate ventilation, or use an appropriate dust mask. Avoid excessive contact with the skin.
Methods for containment:	Prevent further leakage or spillage if safe to do so. Use dyking or absorbant to prevent run-off from entering waterways.

**Methods for cleaning up:** Use any feasible mechanical mean ( e.g. vacuuming, sweeping) but avoid dusting during clean up.

## SECTION 7- HANDLING AND STORAGE

Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid contact with skin, eyes and clothing. Wash hands thoroughly before eating, drinking or smoking.
Storage	Keep container tightly closed in a dry and well-ventilated place. Store in original container.

## SECTION 8-EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

Engineering measures	Good natural ventilation will be sufficient in most circumstances. Local exhaust ventilation may be necessary if airborne dust concentration approaches the exposure limit(s).
Eye /face protection	Safety glasses with side-shields. Goggles.
Skin and body protection	Wear protective gloves/clothing.
Respiratory protection	Use NIOSH approved dust HEPA-type respirator if limit(s) is or may be exceeded.
Hygiene measures	Individuals having sensitive skin may find it beneficial to use a barrier cream or moisturizer when excessive or prolonged contact with the skin is likely.

## SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Yellow	<b>Odor</b>	None
<b>Physical state</b>	Powder	<b>ph</b>	Not applicable
<b>Flash point</b>	None	<b>Auto-ignition temperature</b>	Not applicable
<b>Boiling point/boiling range</b>	Not applicable	<b>Melting point/range</b>	Not determined
<b>Explosion limits</b>	Not applicable	<b>Flammability Limits in air</b>	Not applicable
<b>Specific gravity</b>	1.68 g/ cm <sup>3</sup>	<b>Molecular weight</b>	Not applicable
<b>Water solubility</b>	Slightly soluble	<b>Evaporation rate</b>	Not applicable

<b>Vapor pressure</b>	Not applicable	<b>Vapor density</b>	Not applicable
<b>VOC content(%)</b>	None		

**SECTION 10-STABILITY AND REACTIVITY**

Stability	Stable under normal conditions.
Incompatible products	Aluminum and aluminum salts. Reacts with strong acids to liberate carbon dioxide.
Conditions to avoid	Contact with incompatible substances.
Hazardous decomposition products	Carbon dioxide and calcium oxide.
Hazardous polymerization	Hazardous polymerization does not occur.

**SECTION 11-TOXICOLOGICAL INFORMATION****Acute toxicity**

Product information: These products do not present acute toxicity hazard based on known or supplied information.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium carbonate	2000-6450 mg/kg Oral LD50 ( Rat )		
Titanium dioxide	10000 mg/kg Oral LD50 ( Rat )		
Aluminum hydroxide	5000 mg/kg Oral LD50 ( Rat )		
Amorphous Silica	5000 mg/kg Oral LD50 ( Rat )	2000 mg/kg dermal LD50( Rabbit )	

**Chronic Toxicity**

Titanium dioxide is listed by IARC as possibly carcinogenic to humans ( Group 2B ). This listing is based on inadequate evidence of carcinogenicity in humans and sufficient evidence in experimental animals.

Chemical name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		2B		

Target organ effects In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particle have been shown to cause lung tumors at concentrations associated with substantial particle lung burdens and consequential

pulmonary overload and inflammation. However, other laboratory animals such as mice and hamsters did not develop lung tumors under similar testing with titanium dioxide. Furthermore, human epidemiology studies do not suggest an association between occupational exposure to titanium dioxide and risk for cancer.

## Section 12-ECOLOGICAL INFORMATION

### Ecotoxicity

Available evidence indicates that titanium dioxide does not cause any significant adverse environmental effects

Chemical name	Toxicity to algae	Toxicity to fish	Microtox	Daphnia magna( water flea )
Amorphous silica	EC50 = 440 mg/L 72h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50=7600 mg/L 48h

Available evidence indicates that mixture does not cause any significant adverse environmental effects

### Persistence and degradability

Product is not biodegradable

### Bioaccumulation /accumulation

Does not bioaccumulate

### Mobility

There is no evidence of mobility of these products.

## SECTION 13-DISPOSAL CONSIDERATIONS

### Waste disposal methods

This material, as supplied, is not a hazardous waste according to state and federal regulations ( 40 CFR 261).

### Contaminated packaging

Contaminated packages are not considered hazardous for disposal into sanitary landfill or industrial waste disposal landfill. Please review appropriate national and local waste regulations.

## SECTION 14-TRANSPORT INFORMATION

### DOT

Not regulated

### TDG

Not regulated

### IMO

Not regulated

**SECTION 15-REGULATORY INFORMATION****CEPA status**

All components of this product are on the Canadian List

**WHMIS HAZARD CLASS**

D2B Toxic materials

**NFPA**

Health	1
Flammability	0
Physical Hazard	0

**HMIS**

Health	1
Flammability	0
Physical Hazard	0

**SECTION 16-OTHER INFORMATION****Prepared by****Phone number****Date (last revision)**

Technical Director

514-645-9559

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**Sources used**

COOHS literature and supplier's MSDS

To the best of Starco Concentrates' knowledge, the aforementioned information is accurate as of the date of preparation. However, since the conditions of use of this product are not within the control of Starco Concentrates. It is the user's responsibility to determine the suitability of his particular purpose. Starco Concentrates assumes no obligation or liability regarding the accuracy of this data, or the results to be obtained from their use.