



The Shepherd Color Company
We Brighten Lives

SAFETY DATA SHEET

1. Identification

Product identifier	ORANGE 10C341
Other means of identification	
Product Code	OR0010C341
Synonyms	Rutile Tin Zinc * C.I. Pigment Yellow 216
Recommended use	Colorant
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer/Importer/Supplier/Distributor information	The Shepherd Color Company
Address	4539 Dues Drive Cincinnati, OH 45246 USA
Telephone	+1 513-874-0714
Fax	+1-513-874-0946
E-mail	SDS@shepherdcolor.com
Contact person	Product Safety Department
Emergency telephone	CHEMTREC - Domestic USA: 1-800-424-9300 CHEMTREC - International: +1 703-527-3887

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	Contains no hazardous ingredients according to GHS
Precautionary statement	
Prevention	Not assigned.
Response	Not assigned.
Storage	Not assigned.
Disposal	Not assigned.
Hazard(s) not otherwise classified (HNOC)	Not assigned.
Supplemental information	May cause skin and eye irritation. Inhalation of dusts may cause respiratory irritation. Avoid contact with eyes and prolonged or repeated contact with skin. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. IF SWALLOWED: Do not induce vomiting. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person. IF IN EYES: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. IF ON SKIN: Wash with plenty of soap and water. Call a physician if symptoms develop or persist. For industrial use only. Additional information is given in the Safety Data Sheet.
Substance(s) formed under the condition of use	Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
RUTILE TIN ZINC		85536-73-8	90 - 100
AMORPHOUS SILICA		7631-86-9	≤ 10

Composition comments This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.

4. First-aid measures

Inhalation Remove to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

Skin contact Wash the skin immediately with soap and water. Get medical attention if irritation develops or persists.

Eye contact Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Ingestion Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting. Give several glasses of water to dilute contents of stomach and call a physician.

Most important symptoms/effects, acute and delayed Contact with eyes may cause irritation. Inhalation of dusts may cause respiratory irritation. Contact with skin may cause irritation.

General information If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Where there is a potential for eye exposure to this substance, an eye wash fountain should be provided within the immediate work area for emergency use.

5. Fire-fighting measures

Suitable extinguishing media Use extinguishing agent suitable for type of surrounding fire.

Unsuitable extinguishing media Not applicable.

Specific hazards arising from the chemical None known.

Special protective equipment and precautions for firefighters Use protective equipment appropriate for surrounding materials.

Fire fighting equipment/instructions Not a fire hazard.

Specific methods Not established.

General fire hazards This product is not flammable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Methods and materials for containment and cleaning up Avoid dust formation. Following product recovery, flush area with water. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.

Environmental precautions Do not discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Keep formation of airborne dusts to a minimum. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities Store in closed original container in a dry place. Room temperature - normal conditions. Use care in handling/storage. Keep in properly labelled containers.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Percent	Form
AMORPHOUS SILICA (7631-86-9)	TWA	10 mg/m3	≤ 10%	(80 mg/m3) (% silica)

Components	Type	Value	Percent	Form
		15 mg/m3	<= 10%	Total dust.
		20 mppcf	<= 10%	
		5 mg/m3	<= 10%	Respirable fraction.
		0.8 mg/m3	<= 10%	

Metals	Type	Value	Percent	Form
TIN AND COMPOUNDS	PEL	2 mg/m3	31 - 44%	(as Sn)
ZINC COMPOUNDS	NONE		10 - 20%	(as Zn)

US. ACGIH Threshold Limit Values (TLV)

Metals	Type	Value	Percent	Form
TIN AND COMPOUNDS	TWA	2 mg/m3	31 - 44%	(as Sn)
ZINC COMPOUNDS	NONE		10 - 20%	(as Zn)

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Safety glasses with side-shields.
Skin protection	
Hand protection	Rubber or plastic gloves. PVC disposable gloves. Use impervious gloves.
Other	Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. MSHA/NIOSH respirators approved for dusts TC-21C or NIOSH approved cartridges for Non-oil aerosols, N95, N99, N100 (42 CFR 84). A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use.
Thermal hazards	Not applicable.
General hygiene considerations	Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance	Powder.
Physical state	Solid.
Form	Powder.
Color	Not available.
Odor	None.
Odor threshold	Not available.
pH	See tech data sheet.
Melting point/freezing point	Not applicable
	Not applicable
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable.
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits**Explosive limit - lower (%)** Not applicable.**Explosive limit - upper (%)** Not applicable.**Vapor pressure** Not applicable**Vapor density** Not applicable**Relative density** See tech data sheet.**Solubility(ies)****Solubility (water)** Negligible**Partition coefficient
(n-octanol/water)** Not applicable.**Auto-ignition temperature** Not applicable.**Decomposition temperature** Not applicable**Viscosity** Not applicable**Other information****Density** See tech data sheet.**Loose Packing Density** See tech data sheet.**10. Stability and reactivity****Reactivity** Not available.**Chemical stability** Stable under normal temperature conditions and recommended use.**Possibility of hazardous reactions** Hazardous polymerization does not occur.**Conditions to avoid** None known.**Incompatible materials** None known.**Hazardous decomposition products** No hazardous decomposition products are known.**11. Toxicological information****Information on likely routes of exposure****Inhalation** May cause irritation to the respiratory system.**Skin contact** Contact with skin may cause irritation.**Eye contact** May irritate eyes.**Ingestion** No adverse effects due to ingestion are expected.**Symptoms related to the physical, chemical and toxicological characteristics** Product dust may be irritating to eyes, skin and respiratory system.**Information on toxicological effects****Acute toxicity** May cause respiratory irritation. May be slightly irritating to skin and eyes.

Components	Species	Test Results
AMORPHOUS SILICA (CAS 7631-86-9)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 2000 mg/kg
RUTILE TIN ZINC (CAS 85536-73-8)		
<u>Acute</u>		
Inhalation		
LD50	Rat	Not Tested
Oral		
LD50	Rat	Not Tested
Skin corrosion/irritation	Contact with skin may cause irritation.	

Serious eye damage/eye irritation May irritate eyes.

Respiratory or skin sensitization

Respiratory sensitization No data available.

Skin sensitization No data available.

Germ cell mutagenicity Not available.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard Not applicable.

Chronic effects No data available.

Further information This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished material do not necessarily reflect the properties of the component metals or oxides. Repeated overexposure to this compound may cause eye, skin and respiratory tract irritation. Some compounds of the metals used in the manufacturing of this material have demonstrated various toxic properties. However, there is no evidence that this material has these toxic characteristics.

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Persistence and degradability The product is not expected to be biodegradable.

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Mobility in soil No data available.

Mobility in general No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions All wastes must be handled in accordance with local, state and federal regulations.

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

DOT BULK

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
ZINC COMPOUND	N/A	90 - 100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 08-04-2014

Revision date 08-16-2024

Version #

17

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Product and Company Identification: Synonyms

Accidental release measures: Personal precautions, protective equipment and emergency procedures

Exposure controls/personal protection: Respiratory protection

Regulatory information: California Proposition 65