

SECTION 1: Identification**1.1. Identification**

Product form : Article
 Trade name : ST.2100 Tube Marker
 Synonyms : ST.2100 Tube Marker - Black, Blue, Green, Red, White, Yellow

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Marking.
 Restrictions on use : No additional information available

1.3. Details of the supplier of the safety data sheet

LA-CO Industries, Inc.
 1201 Pratt Boulevard
 Elk Grove Village, IL. 60007-5746
 Phone: (847) 956-7600
 Fax: (847) 956-9885
 E-mail: customer_service@laco.com

1.4. Emergency telephone number**SECTION 2: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS-US classification**

Not classified

2.2. Label elements**GHS-US labelling**

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

1.12% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
 1.12% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
 1.12% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Butyl acetate	(CAS-No.) 123-86-4	46-49	Flam. Liq. 3, H226 STOT SE 3, H336
calcium carbonate substance with OEL values	(CAS-No.) 471-34-1	31 - 33.5	Not classified
Titanium dioxide	(CAS-No.) 13463-67-7	1.5 – Yellow 2.2 – Blue 6.3 - White	Carc. 2, H351
Silicon dioxide (cristobalite)	(CAS-No.) 14808-60-7	< 0.98	Carc. 1A, H350
Carbon black	(CAS-No.) 1333-86-4	0.88 - Black	Carc. 2, H351

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : Never give anything by mouth to an unconscious person.
 First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

- First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower.
First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water.
First-aid measures after ingestion : Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May cause drowsiness or dizziness. Inhalation of vapours may cause respiratory irritation.
Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour. Burning produces irritating, toxic and noxious fumes.
Explosion hazard : May form flammable/explosive vapour-air mixture.
Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers.
Protection during firefighting : Wear a self contained breathing apparatus. Wear fire/flammable resistant/retardant clothing. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Large amounts: Wear suitable protective clothing and gloves. Chemical goggles or safety glasses.
Emergency procedures : Evacuate area.

6.1.2. For emergency responders

- Protective equipment : Large amounts: Wear suitable protective clothing and gloves, Chemical goggles or safety glasses.
Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so. Do not allow minor leaks or spills to accumulate on walking surfaces.
Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container. Following recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
Precautions for safe handling : No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid all eye and skin contact and do not breathe vapour and mist. Use only outdoors or in a well-ventilated area.
Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed.
Incompatible products : Strong acids. Strong bases. Strong oxidizers.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

Incompatible materials	: Heat sources. Direct sunlight.
Heat and ignition sources	: Keep away from heat, sparks and flame.
Prohibitions on mixed storage	: Incompatible materials.
Storage area	: Store in dry, cool, well-ventilated area. Keep out of direct sunlight. Keep out of reach of children.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ST.2100 Tube Marker		
ACGIH	Not applicable	
OSHA	Not applicable	
Butyl acetate (123-86-4)		
ACGIH	ACGIH TWA (mg/m ³)	713 mg/m ³
ACGIH	ACGIH TWA (ppm)	150 ppm
ACGIH	ACGIH STEL (mg/m ³)	950 mg/m ³
ACGIH	ACGIH STEL (ppm)	200 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	OSHA PEL (TWA) (mg/m ³)	710 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	150 ppm
Canada (Quebec)	VECD (mg/m ³)	950 mg/m ³
Canada (Quebec)	VECD (ppm)	200 ppm
Canada (Quebec)	VEMP (mg/m ³)	713 mg/m ³
Canada (Quebec)	VEMP (ppm)	150 ppm
Carbon black (1333-86-4)		
ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³
ACGIH	Remark (ACGIH)	Bronchitis
OSHA	OSHA PEL (TWA) (mg/m ³)	3.5 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	10 mg/m ³ (Fibres de carbone et de graphite; Poussière totale) 5 mg/m ³ (Fibres de carbone et de graphite; Poussière respirable) 3.5 mg/m ³
Titanium dioxide (13463-67-7)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	Remark (ACGIH)	LRT irr; A4 (Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure)
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³
Canada (Quebec)	VEMP (mg/m ³)	10 mg/m ³
Canada (Quebec)	Notations and remarks	(la poussière totale), (note1)
Silicon dioxide (cristobalite) (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³
ACGIH	Remark (ACGIH)	(respirable dust)
OSHA	OSHA PEL (TWA) (ppm)	250 mppcf
OSHA	Remark (OSHA)	(3) See Table Z-3.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

Silicon dioxide (cristobalite) (14808-60-7)		
Canada (Quebec)	VEMP (mg/m ³)	0.1 mg/m ³
Canada (Quebec)	Notations and remarks	(la poussière respirable), (C2)
calcium carbonate (471-34-1)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
OSHA	Not applicable	
Canada (Quebec)	VEMP (mg/m ³)	10 mg/m ³
Canada (Quebec)	Notations and remarks	(la poussière totale)

8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: None under normal use.
Eye protection	: None under normal use.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Wear appropriate mask. EN 12083.
Consumer exposure controls	: Keep out of reach of children.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Solid marker containing liquid colored paint.
Colour	: Variable
Odour	: Solvent
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: 21 - 55 °C
Boiling point	: > 35 °C
Flash point	: 27.5 °C
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour.
Vapour pressure	: < 110 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: insoluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: Lower explosive limit (LEL): 1.2 vol % Upper explosive limit (UEL): 7.5 vol %
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

VOC content	: ≈ 50 %
-------------	----------

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks.

10.5. Incompatible materials

Strong bases. Strong oxidizers. Strong acids.

10.6. Hazardous decomposition products

May release flammable gases. Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : Not classified

Butyl acetate (123-86-4)	
LD50 oral rat	10760 mg/kg
LD50 dermal rabbit	> 14112 mg/kg
LC50 inhalation rat (mg/l)	> 21 mg/l/4h
ATE US (oral)	10760 mg/kg bodyweight

Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m ³ 4 h

Titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 6.82 mg/l/4h

calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 3 mg/l/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified.

Carbon black (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans, Inhalation of dust

Titanium dioxide (13463-67-7)	
NOAEL (chronic, oral, animal/male, 2 years)	5 mg/kg bodyweight rat
Additional information	Carcinogen Inhalation of dust
IARC group	2B - Possibly carcinogenic to humans

Silicon dioxide (cristobalite) (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified.
Specific target organ toxicity (repeated exposure) : Not classified
Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause drowsiness or dizziness. Inhalation of vapours may cause respiratory irritation.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No ecotoxicological data about this product are known.

calcium carbonate (471-34-1)	
LC50 fish 1	> 100 % v/v, 96 h
EC50 Daphnia 1	> 100 % v/v, 48 h

12.2. Persistence and degradability

ST.2100 Tube Marker	
Persistence and degradability	Not established.

Carbon black (1333-86-4)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

ST.2100 Tube Marker	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

ST.2100 Tube Marker	
Ecology - soil	No additional information available.

12.5. Other adverse effects

Other information : No additional information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with US-DOT 49-CFR and the HMR / TDG / ADR / IMDG / ICAO / IATA

In accordance with DOT

Transport document description : UN1263 Paint (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base), 3, III
UN-No.(DOT) : UN1263
Proper Shipping Name (DOT) : Paint (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base)
Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 3 - Flammable liquid



Transportation of Dangerous Goods

Transport document description : UN1263 Paint, 3, III
UN-No. (TDG) : UN1263
Proper Shipping Name (Transportation of Dangerous Goods) : Paint
TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

Packing group : III - Minor Danger

Transport by sea

Proper Shipping Name (IMDG) : Not Regulated in accordance with section 2.3.2.5 of the IMDG code

Air transport

UN-No. (IATA) : 1263
Proper Shipping Name (IATA) : PAINT
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

Butyl acetate (123-86-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ : 5000 lb

Carbon black (1333-86-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Titanium dioxide (13463-67-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Silicon dioxide (cristobalite) (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Magnesium oxide (1309-48-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Iron oxide red (1309-37-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aluminum oxide (1344-28-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

calcium carbonate (471-34-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Xylene (1330-20-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ : 100 lb

ethylbenzene (100-41-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ : 1000 lb

1-Butanol (71-36-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 International regulations

ST.2100 Tube Marker

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).
All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).
All ingredients are listed in the Toxic Substances Control Act (TSCA).

15.3. US State regulations

ST.2100 Tube Marker

State or local regulations : The carbon black in this product is bound and is not respirable.
California Prop. 65 warnings are not required.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

Carbon black (1333-86-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
Titanium dioxide (13463-67-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
Silicon dioxide (cristobalite) (14808-60-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	
ethylbenzene (100-41-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	54
Butyl acetate (123-86-4)				
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				
Carbon black (1333-86-4)				
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - New Jersey - Right to Know Hazardous Substance List				
Titanium dioxide (13463-67-7)				
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				
Silicon dioxide (cristobalite) (14808-60-7)				
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations U.S. - New Jersey - Right to Know Hazardous Substance List				

SECTION 16: Other information

Data sources : ACGIH (American Conference of Government Industrial Hygienists).
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.
OSHA 29CFR 1910.1200 Hazard Communication Standard.
TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.

ST.2100 Tube Marker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations, Canada HPR

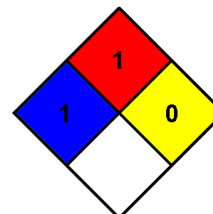
Full text of H-statements:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	PBT: Persistent, Bioaccumulative, Toxic
	TWA: Time Weighted Average
	TSCA: Toxic Substances Control Act

- NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.
- NFPA fire hazard : 1 - Materials that must be preheated before ignition can occur.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43017
T 614-923-7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product