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

according to Canadian Hazardous Products Regulations (HPR)

Date of issue: 02/05/2015Revision date: 07/21/2015 LA-CO Industries, Inc.

Version: 2.0

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture

Product name : Quik Stik® TWIST PAINT MARKER Yellow, Green, Blue, Orange, Red

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

Use of the substance/mixture : Marking.

#### Details of the supplier of the safety data sheet 1.3.

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

#### **Emergency telephone number**

**Emergency number** : 24-hour emergency: CHEMTREC- U.S.: 1-800-424-9300 International: +1-703-527-3887

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification in accordance with the Globally Harmonized Standard

Skin Irrit, 2 Eye Irrit. 2A H319 Skin Sens. 1 H317 Repr. 2 H361 Aquatic Chronic 3 H412

Full text of classification categories and H statements : see section 16

#### 2.2 Label elements

#### **GHS** labelling

Hazard pictograms (GHS)





GHS07

Signal word (GHS) : Warning

Hazard statements (GHS) : H315 - Causes skin irritation

> H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

H361 - Suspected of damaging fertility or the unborn child H412 - Harmful to aquatic life with long lasting effects

: P201 - Obtain special instructions before use Precautionary statements (GHS)

P202 - Do not handle until all safety precautions have been read and understood

P261 - Avoid breathing dust, fume, vapours P264 - Wash hands thoroughly after handling

P272 - Contaminated work clothing must not be allowed out of the workplace

P273 - Avoid release to the environment

P280 - Wear eye protection, protective clothing, protective gloves

P302+P352 - If on skin: Wash with plenty of water

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

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lenses, if present and easy to do. Continue rinsing

P308+P313 - If exposed or concerned: Get medical advice/attention P321 - Specific treatment (see First aid measures on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse

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P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container to Dispose in a safe manner in accordance with

local/national regulations

#### 2.3. Other hazards

#### 2.4 Unknown acute toxicity (GHS US)

0.02 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

4.74 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

2.74 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	% (w/w)	GHS classification
1-butoxypropan-2-ol	(CAS No) 5131-66-8	30.4 – 31.04 Yellow, Green, Orange 33.44 – 34.14 Blue 30.27 – 30.9 Red	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
(2-Methoxymethylethoxy)-propanol	(CAS No) 34590-94-8	8 Yellow, Green, Orange 8.8 Blue 7.96 Red	Flam. Liq. 4, H227
N-Ethyl O/P Toluene Sulfonamides	(CAS No) 8047-99-2	1.5 Yellow, Green, Orange 3.3 Blue 1.49 Red	Acute Tox. 3 (Dermal), H311
Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-)	(CAS No) 85408-46-4	1.5 – 2 Yellow 0.75 – 1 Green	Aquatic Chronic 2, H411
Amines, C10-14-branched and linear alkyl, bis[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)] chromate(1-)(1:1)	(CAS No) 84961-40-0	2 Orange 0.3 Red	Acute Tox. 4 (Oral), H302
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	(CAS No) 41556-26-7	0.35 – 0.43 Yellow, Green, Orange, Red 0.39 – 0.47 Blue	Flam. Liq. 4, H227 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
4-tert-butylphenol	(CAS No) 98-54-4	0.16 – 0.4 Yellow, Green, Orange, Red 0.18 – 0.44 Blue	Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361 STOT SE 3, H335 Aquatic Chronic 2, H411
Polyethylene glycol di[3-[3-(2H- benzotriazol-2- yl)-5-tert-butyl-4- hydroxyphenyl]- 1-oxopropyl] ether	(CAS No) 104810-47-1	0.15 – 0.3 Yellow, Green, Orange, Red 0.17 – 0.33 Blue	Skin Sens. 1, H317 Aquatic Chronic 2, H411
Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy-	(CAS No) 104810-48-2	0.15 – 0.3 Yellow, Green, Orange, Red 0.17 – 0.33 Blue	Skin Sens. 1, H317 Aquatic Chronic 2, H411
Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) ester	(CAS No) 82919-37-7	0.05 – 0.15 Yellow, Green, Orange, Red 0.06 – 0.17 Blue	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of 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. IF exposed or concerned: Get

medical advice/attention.

First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position

comfortable for breathing.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation

or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

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

Symptoms/injuries : Suspected of damaging fertility or the unborn child.

Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Causes serious eye irritation.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

#### **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 : Combustible. Combustion generates : Carbon oxides (CO, CO2). Nitrogen oxides. Sulphur

oxides. metallic oxides.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter

drains or water courses.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Avoid creating or spreading dust.

6.1.1. For non-emergency personnel

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid.

Methods for cleaning up : Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting.

#### 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

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been

read and understood. Do not breathe dust, fume, vapours.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated

clothing before reuse. Do not eat, drink or smoke when using this product. Wash hands

thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from ignition sources. Keep container closed when not in use. Protect from sunlight.

Incompatible products : Strong oxidizers. Acids. Incompatible materials : Sources of ignition.

#### 7.3. Specific end use(s)

Marking

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#### **SECTION 8: Exposure controls/personal protection**

8.1.	Control	parameters
0.1.	Control	parameters

8.1. Control parameters			
	ARKER Yellow, Green, Blue, Orange, Red		
ACGIH	Not applicable		
OSHA	Not applicable		
N-Ethyl O/P Toluene Sulfon	namides (8047-99-2)		
ACGIH	Not applicable		
OSHA	Not applicable		
4-tert-butylphenol (98-54-4)			
ACGIH	Not applicable		
OSHA	Not applicable		
1-butoxypropan-2-ol (5131-	66-8)		
ACGIH	Not applicable		
OSHA	Not applicable		
(2-Methoxymethylethoxy)-p	propanol (34590-94-8)		
ACGIH	ACGIH TWA (mg/m³)	606 mg/m³	
ACGIH	ACGIH TWA (ppm)	100 ppm	
ACGIH	ACGIH STEL (mg/m³)	909 mg/m³	
ACGIH	ACGIH STEL (ppm)	150 ppm	
OSHA	OSHA PEL (TWA) (mg/m³)	600 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	100 ppm	
OSHA	OSHA PEL (STEL) (mg/m³)	600 mg/m³	
Canada (Quebec)	VECD (mg/m³)	909 mg/m³	
Canada (Quebec)	VECD (mg/m)	150 ppm	
Canada (Quebec)	VEMP (mg/m³)	606 mg/m³	
Canada (Quebec)	VEMP (ppm)	100 ppm	
Polyethylene glycol di[3-[3-	(2H-benzotriazol-2- yl)-5-tert-butyl-4-hydrox	(yphenyl]- 1-oxopropyl] ether (104810-47-1)	
ACGIH	Not applicable		
OSHA	Not applicable		
Poly(oxy-1,2-ethanediyl), a-		ethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy- (104810-48-2)	
ACGIH	Not applicable		
OSHA	Not applicable		
bis(1,2,2,6,6-pentamethyl-4	-piperidyl) sebacate (41556-26-7)		
ACGIH	Not applicable		
OSHA Not applicable			
Decanedioic acid, 1-methyl	10-(1,2,2,6,6-pentamethyl-4-piperidinyl) est	er (82919-37-7)	
ACGIH	Not applicable		
OSHA	Not applicable		
Amines, C10-14-branched a chromate(1-)(1:1) (84961-40		xy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)]	
ACGIH	Not applicable		
OSHA	Not applicable		
Amines, C12-14-tert-alkyl, k	ois[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-	-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4)	
ACGIH	Not applicable		
OSHA	Not applicable		
	1		

#### 8.2. Exposure controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear suitable gloves. Use rubber gloves.

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Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. Long sleeved protective clothing.

Respiratory protection : Where excessive vapour may result, wear approved mask. Use air-purifying respirator

equipped with particulate filtering cartridges.

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 : Solid

Appearance : A solid crayon-like marker.

Colour : Variable.
Odour : Solvent.

Odour threshold : No data available pH : No data available Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available : No data available

Flash point : 62 °C

Auto-ignition temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) : No data available Vapour pressure No data available Relative vapour density at 20 °C : No data available Relative density : No data available Solubility : No data available Log Pow : No data available Log Kow : No data available Viscosity, kinematic : No data available Viscosity, dynamic No data available Explosive properties No data available Oxidising properties : No data available Explosive limits : No data available

9.2. Other information

VOC content : 46.2 %

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No dangerous reactions known.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Heat. Direct sunlight.

#### 10.5. Incompatible materials

Strong acids. Strong oxidizers.

#### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Nitrogen oxides. metallic oxides. Sulphur oxides.

### **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

N-Ethyl O/P Toluene Sulfonamides (8047-99-2)	
LD50 oral rat	2250 mg/kg

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N Ethyl O/D Talvana Sulfanamidae (9047 00	
N-Ethyl O/P Toluene Sulfonamides (8047-99-2	
LD50 dermal rabbit	1000 mg/kg
ATE CLP (oral)	2250.000 mg/kg bodyweight
ATE CLP (dermal)	1000.000 mg/kg bodyweight
4-tert-butylphenol (98-54-4)	
LD50 oral rat	> 2000 mg/kg No mortality observed
LD50 dermal rabbit	> 16 g/kg No mortality observed
LC50 inhalation rat (mg/l)	5.6 mg/l/4h
ATE CLP (vapours)	5.600 mg/l/4h
ATE CLP (dust,mist)	5.600 mg/l/4h
1-butoxypropan-2-ol (5131-66-8)	
LD50 oral rat	3300 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (ppm)	> 651 ppm/4h
ATE CLP (oral)	3300.000 mg/kg bodyweight
(2-Methoxymethylethoxy)-propanol (34590-94	4-8)
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 19020 mg/kg
LC50 inhalation rat (mg/l)	> 1667 mg/l/4h
Polyethylene glycol di[3-[3-(2H-benzotriazol-	2- yl)-5-tert-butyl-4-hydroxyphenyl]- 1-oxopropyl] ether (104810-47-1)
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rat	> 2000.000 mg/kg bodyweight
Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotri	iazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy- (104810-48-2)
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rat	> 2000.000 mg/kg bodyweight
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebaca	nte (41556-26-7)
LD50 oral rat	2369 (2369 - 3920) mg/kg
ATE CLP (oral)	2369.000 mg/kg bodyweight
Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pent	amethyl-4-piperidinyl) ester (82919-37-7)
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
Amines, C10-14-branched and linear alkyl, bi chromate(1-)(1:1) (84961-40-0)	is[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)]
LD50 oral rat	1400 mg/kg
ATE CLP (oral)	1400.000 mg/kg bodyweight
Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro	-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4)
	> 5000 mg/kg
LD50 oral rat	1

Serious eye damage/irritation : Causes serious eye irritation. Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified Carcinogenicity : Not classified.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure)

: Not classified

Specific target organ toxicity (repeated : Not classified exposure)

: Not classified

Potential adverse human health effects and symptoms

Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Causes serious eye irritation. Likely routes of exposure : Skin and eye contact

#### **SECTION 12: Ecological information**

#### 12.1 **Toxicity**

**Aspiration hazard** 

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cording to Canadian Hazardous Products Regulations (H	PR)
Ecology - water	: Harmful to aquatic life with long lasting effects.
4-tert-butylphenol (98-54-4)	
LC50 fish 1	> 1 mg/l 96 h
EC50 Daphnia 1	4.8 mg/l 48 h
1-butoxypropan-2-ol (5131-66-8)	
LC50 fish 1	> 560 (560 - 1000) mg/l 96 h
EC50 Daphnia 1	> 1000 mg/l 48 h
(2-Methoxymethylethoxy)-propanol (34590-94-	-8)
LC50 fish 1	> 1000 mg/l Poecilia reticulata
ErC50 (algae)	> 1000 mg/l
Polyethylene glycol di[3-[3-(2H-benzotriazol-2	- yl)-5-tert-butyl-4-hydroxyphenyl]- 1-oxopropyl] ether (104810-47-1)
LC50 fish 1	2.8 mg/l Oncorhynchus mykiss
EC50 Daphnia 1	4 mg/l
ErC50 (algae)	> 9 mg/l
NOEC (chronic)	1 mg/l
Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotria	azol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy- (104810-48-2)
LC50 fish 1	2.8 mg/l Oncorhynchus mykiss
EC50 Daphnia 1	4 mg/l
ErC50 (algae)	> 9 mg/l
NOEC (chronic)	1 mg/l
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat	e (41556-26-7)
LC50 fish 1	0.97 mg/l 96 h
EC50 Daphnia 1	20 mg/l 24 h
Amines, C10-14-branched and linear alkyl, bis chromate(1-)(1:1) (84961-40-0)	s[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)]
EC50 Daphnia 1	> 100 mg/l
Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-	3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4)
LC50 fish 1	1 - 10 mg/l 96 h Brachydanio rerio
2.2. Persistence and degradability	
Quik Stik® TWIST PAINT MARKER Yellow, Gr	een, Blue, Orange, Red
Persistence and degradability	May cause long-term adverse effects in the environment.
4-tert-butylphenol (98-54-4)	
Biodegradation	60 % 28 d
1-butoxypropan-2-ol (5131-66-8)	
Persistence and degradability	Readily biodegradable.
(2-Methoxymethylethoxy)-propanol (34590-94) Persistence and degradability	Readily biodegradable.
	, ,
	P-yl)-5-tert-butyl-4-hydroxyphenyl]- 1-oxopropyl] ether (104810-47-1)  Not readily biodegradable.
Persistence and degradability Biodegradation	24 %
Daludanu 4 0 athamadiul\ a [0 [0 (0]] hamatuia	
	azol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy- (104810-48-2)
Persistence and degradability	Not readily biodegradable.
Persistence and degradability Biodegradation	Not readily biodegradable. 24 %
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat	Not readily biodegradable. 24 % e (41556-26-7)
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation	Not readily biodegradable. 24 %  e (41556-26-7) 38 % 28 d
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-10-(1,2,2,2,6,6-pentamethyl-10-(1,2,2,6,	Not readily biodegradable. 24 %  (e (41556-26-7) 38 % 28 d  amethyl-4-piperidinyl) ester (82919-37-7)
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation  Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pental Persistence and degradability	Not readily biodegradable. 24 %  e (41556-26-7) 38 % 28 d
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation  Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pental Persistence and degradability	Not readily biodegradable. 24 %  (e (41556-26-7) 38 % 28 d  (amethyl-4-piperidinyl) ester (82919-37-7)
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation  Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pental Persistence and degradability	Not readily biodegradable. 24 %  (e (41556-26-7) 38 % 28 d  (amethyl-4-piperidinyl) ester (82919-37-7)
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation  Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pental Persistence and degradability  2.3. Bioaccumulative potential	Not readily biodegradable. 24 %  (e (41556-26-7) 38 % 28 d  amethyl-4-piperidinyl) ester (82919-37-7)
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation  Decanedioic acid, 1-methyl 10-(1,2,2,6,6-penta Persistence and degradability  2.3. Bioaccumulative potential  4-tert-butylphenol (98-54-4)	Not readily biodegradable. 24 %  (e (41556-26-7) 38 % 28 d  (amethyl-4-piperidinyl) ester (82919-37-7)  Not readily biodegradable.
Persistence and degradability Biodegradation bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacat Biodegradation  Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pental Persistence and degradability 2.3. Bioaccumulative potential 4-tert-butylphenol (98-54-4) Log Pow	Not readily biodegradable. 24 %  (e (41556-26-7) 38 % 28 d  (amethyl-4-piperidinyl) ester (82919-37-7)  Not readily biodegradable.

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D = 1 = / = = = 4 O = 41 = = = = 1! = 1\ = 10	-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethy	d = 4 loo = 1	
POLVIOVV-1 2-ethanedivil a-i s	-!	//etn\/II-4-n\/ar^\/\nnen\/II-1-^\/^n	ronvii-w-nvarovv- (104×10-4×-2)

Bioconcentration factor (BCF REACH) 34

#### bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Log Pow 0.37

#### Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (82919-37-7)

Log Pow 2.37

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

No additional information available

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

#### **SECTION 14: Transport information**

In accordance with DOT and TDG

Not considered a dangerous good for transport regulations

Proper Shipping Name (ADR) : Not applicable

#### Transport by sea

No additional information available

#### Air transport

No additional information available

#### **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

#### N-Ethyl O/P Toluene Sulfonamides (8047-99-2)

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

#### 4-tert-butylphenol (98-54-4)

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

#### 1-butoxypropan-2-ol (5131-66-8)

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

#### (2-Methoxymethylethoxy)-propanol (34590-94-8)

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

EPA TSCA Regulatory Flag T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

#### Polyethylene glycol di[3-[3-(2H-benzotriazol-2- yl)-5-tert-butyl-4-hydroxyphenyl]- 1-oxopropyl] ether (104810-47-1)

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

#### Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy- (104810-48-2)

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

#### bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

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

#### Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (82919-37-7)

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

# Amines, C10-14-branched and linear alkyl, bis[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)] chromate(1-)(1:1) (84961-40-0)

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

#### Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4)

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

#### 15.2. International regulations

#### CANADA

#### N-Ethyl O/P Toluene Sulfonamides (8047-99-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

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#### 4-tert-butylphenol (98-54-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### 1-butoxypropan-2-ol (5131-66-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### (2-Methoxymethylethoxy)-propanol (34590-94-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### Polyethylene glycol di[3-[3-(2H-benzotriazol-2- yl)-5-tert-butyl-4-hydroxyphenyl]- 1-oxopropyl] ether (104810-47-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### $\textbf{Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy-\textbf{(104810-48-2)}}$

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (82919-37-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

# Amines, C10-14-branched and linear alkyl, bis[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)] chromate(1-)(1:1) (84961-40-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### **EU-Regulations**

#### N-Ethyl O/P Toluene Sulfonamides (8047-99-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### 4-tert-butylphenol (98-54-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### 1-butoxypropan-2-ol (5131-66-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### (2-Methoxymethylethoxy)-propanol (34590-94-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Polyethylene glycol di[3-[3-(2H-benzotriazol-2- yl)-5-tert-butyl-4-hydroxyphenyl]- 1-oxopropyl] ether (104810-47-1)

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy- (104810-48-2)

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Decanedioic acid, 1-methyl 10-(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (82919-37-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

# Amines, C10-14-branched and linear alkyl, bis[2,4-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]5-methyl-2-phenyl-3H-pyrazol-3-onato(2-)] chromate(1-)(1:1) (84961-40-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Amines, C12-14-tert-alkyl, bis[2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azo]benzoato(2-)]chromate(1-) (85408-46-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### National regulations

#### Quik Stik® TWIST PAINT MARKER Yellow, Green, Blue, Orange, Red

All components are listed on the EEC inventory European Inventory of Existing Commercial Chemical Substances (EINECS).

All ingredients are listed in the Toxic Substances Control Act (TSCA).

All ingredients are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).

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#### 15.3. US State regulations

#### (2-Methoxymethylethoxy)-propanol (34590-94-8)

- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. New York Right to Know List of Hazardous Chemicals
- U.S. Massachusetts Right To Know List
- U.S. Pennsylvania RTK (Right to Know) List

#### **SECTION 16: Other information**

Indication of changes

Abbreviations and acronyms

: Original Document. Added. Product.

Data sources

: ACGIH 2000.

Canadian Centre for Occupational Health and Safety. Accessed at: <a href="http://www.ccohs.ca/oshanswers/legisl/whmis\_classifi.html">http://www.ccohs.ca/oshanswers/legisl/whmis\_classifi.html</a>.

ESIS (European chemincal Substances Information System; accessed at: <a href="http://esis.irc.ec.europa.eu/index.php?PGM=cla">http://esis.irc.ec.europa.eu/index.php?PGM=cla</a>.

European Chemicals Agency (ECHA) Registered Substances list. Accessed at http://echa.europa.eu/. 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.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

TSCA Chemical Substance Inventory. Accessed at

http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html. ACGIH (American Conference of Government Industrial Hygienists).

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. STEL: Short Term Exposure Limits. TSCA: Toxic Substances Control Act. TWA: Time Weight Average.

Other information : None

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual

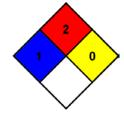
injury even if no treatment is given.

NFPA fire hazard : 2 - Must be moderately heated or exposed to relatively high

temperature before ignition can occur.

: 0 - Normally stable, even under fire exposure conditions,

and not reactive with water.



#### Full text of H-statements:

NFPA reactivity

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category  1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Liq. 4	Flammable liquids, Category 4

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Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3,
	Respiratory tract irritation
H226	Flammable liquid and vapour
H227	Combustible liquid
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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#### LACO NA GHS SDS

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

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