1146 Waterborne Traffic Marking Paint Yellow

1. PRODUCT AND COMPANY INFORMATION

Trade name	1146 Waterborne Traffic Marking Paint Yellow
Product codes	ZB1146, B1146, 1146, Waterborne Traffic Marking Paint Yellow
Chemical family	Aqueous pigmented resin solution
Intended use	Road marking
Company	Colorado Paint Company II, LLC (a Swarco Company) 4747 Holly Street Denver, CO 80216; U. S. A.
Telephone	+1 303-388-9265
Web site	www.swarco.com/americas
Emergency (Chemtrec; 24 h)	1-800-424-9300 (U. S. A. and Canada)

2. HAZARD IDENTIFICATION

Emergency Overview

OSHA Hazards

Target Organ Effect, Irritant

Target Organs

Liver, Kidney

GHS Classification

Specific target organ toxicity - single exposure (Category 2)
Carcinogenicity (Category 1A)
Skin irritation (Category 2)
Eye irritation (Category 2A)

GHS Label elements, including precautionary statements

Pictograms:

Signal word: Danger

Hazard statements

H303 May be harmful if swallowed.
H316 Causes mild skin irritation.
H317 May cause an allergic skin reaction.
H320 Causes eye irritation.
H335 May cause respiratory irritation.
350 May cause cancer.
H371 May cause damage to organs

Precautionary statements

P260 Do not breathe dust / fume / gas / mist / vapours / spray.
P281 Use personal protective equipment as required.
P302+352 IF ON SKIN: Wash with soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS and NFPA Classification:

	HMIS	NFPA Hazard
Health	2*	2
Flammability	1	1
Reactivity	—	0
Physical hazard	0	—

Potential Health Effects

Inhalation: May be harmful if inhaled.
Skin: May cause skin irritation.
Eyes: Causes severe eye irritation.
Ingestion: May be harmful if swallowed. Aspiration hazard if swallowed – can enter lungs and cause damage.

3. COMPOSITION

Name	Synonym	CAS	EINECS	Index	Concentration
Calcium carbonate	Limestone	1317-65-3	207-439-9	—	30-60%
Acrylic resin	Polymeric material	n/a	n/a	—	10-50%
3-Hydroxy-2,2,4-trimethylpentyl 2-methylpropanoate	Hydroxy ester	25265-77-4	246-771-9	—	1-10%
Titanium dioxide	Titanium(IV) oxide	13463-67-7	236-675-5	—	1-10%
Methanol	Methyl alcohol	67-56-1	200-659-6	603-001-00-X	1-5%
2-[(4-Methoxy-2-nitrophenyl)azo]-*N*-(2-methoxyphenyl)-3-oxo-butyramide	Pigment yellow 65	6528-34-3	229-419-9	—	1-5%
Ammonium hydroxide	—	1336-21-6	215-647-6	007-001-01-2	0.1-0.5%
Crystalline silica	Quartz	14464-46-1	238-878-4	—	0.1-0.5%

4. FIRST AID MEASURES

General advice

Consult a physician. Show this Safety Data Sheet to the attending doctor.

If inhaled

Move person to fresh air. If not breathing, give artificial respiration. Obtain proper medical attention.

If on skin

Wash off with soap and water. Consult a physician if needed.

In case of an eye contact

Rinse thoroughly with plenty of running water for at least 15 minutes. Seek medical attention.

If swallowed

Rinse mouth with water. Seek immediate medical attention.

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Product as delivered is water-based and shall not burn.
For dried material that is burning, use water, "alcohol" foam, dry chemical, or carbon dioxide.

Special protective equipment for fire fighters

Do not enter the fire area without proper protection.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions: Carbon oxides, calcium oxide, nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate unnecessary personnel to safe areas.

Environmental precautions

Prevent leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, clean affected area using a strong detergent solution. Collect and place in suitable closed container for disposal according to local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Avoid contact with skin.

Conditions for safe storage

Keep container tightly closed. Recommended storage temperature is 10-30 °C. Do not permit to freeze.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational exposure limits

Occupational exposure limits for the product as delivered have not been established.
Information below is provided for individual ingredients, where available. No occupational exposure limits have been established for other ingredients, which does not imply that they might not be harmful or toxic. Unknown hazards may exist and/or the materials may have not been fully tested. The user is required to follow all of the good industrial hygiene practices

Occupational exposure limits

Calcium carbonate (CAS 1317-65-3):

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Table Z-1: 15 mg/m^3 TWA
OSHA Permissible Exposure Limit (PEL) for Maritime: 29 CFR 1915.1000 Table Z-Shipyards: 15 mg/m^3 TWA
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV): 10 mg/m^3 TWA; The value is for particulate matter containing no asbestos and <1% crystalline silica.
National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL): 10 mg/m^3 TWA
Not considered a hazardous substance. Provided exposure limits are established for respirable dust only, particulate matter containing less than 1% of asbestos. They are meaningless for the paint product as delivered, but apply while sanding or abrading dried coating.

Crystalline silica (CAS 14464-46-1):

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Table Z-3: Limit for dust is calculated per formula: (10 mg/m^3) / (%SiO_2+2).
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV): 0.05 mg/m^3 TWA; (Respirable fraction).
National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL): 0.05 mg/m^3 TWA; Potential Carcinogen.
NIOSH Immediately Dangerous to Life and Health (IDLH) concentration: 25 mg/m^3.
The established limits are for respirable dust only and are meaningless for the paint product as delivered, but apply while sanding or abrading dried coating.
Carcinogenic Classification: International Agency for Research on Cancer (IARC): Group 2A, probably carcinogenic to humans. Health Effects: Pneumoconiosis.

Methanol (CAS 67-56-1):

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Table Z-1: 200 ppm, 260 mg/m^3 TWA.
OSHA PEL for Construction Industry: 29 CFR 1926.55 Appendix A: 200 ppm, 260 mg/m^3 TWA.
OSHA PEL for Maritime Industry: 29 CFR 1915.1000 Table Z-Shipyards: 200 ppm, 260 mg/m^3 TWA.
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV): 200 ppm, 262 mg/m^3 TWA; 250 ppm, 327 mg/m^3 STEL; Skin.
National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL): 200 ppm, 260 mg/m^3 TWA; 250 ppm, 325 mg/m^3 STEL; Skin.
NIOSH Immediately Dangerous to Life and Health (IDLH) concentration: 6,000 ppm, 7860 mg/m^3

Titanium dioxide (CAS 13463-67-7):

OSHA Permissible Exposure Limit (PEL) for General Industry: 29 CFR 1910.1000 Table Z-1: 15 mg/m^3 TWA
OSHA Permissible Exposure Limit (PEL) for Maritime: 29 CFR 1915.1000 Table Z-Shipyards: 15 mg/m^3 TWA
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV): 10 mg/m^3 TWA; Appendix A4 - Not Classifiable as a Human Carcinogen.
National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL): Fine particles: 2.4 mg/m^3, Ultrafine particles: 0.3 mg/m^3. Appendix A: NIOSH Potential Occupational Carcinogens.
NIOSH Immediately Dangerous to Life and Health (IDLH) concentration: 25 mg/m^3.
The established limits are for respirable dust only and are meaningless for the paint product as delivered, but apply while sanding or abrading dried coating.
Lower Respiratory Tract irritation. Slight lung fibrosis (carcinogenic in rats). Health Effect: Nuisance particulate, accumulation in lungs. Not classifiable as a human carcinogen. No increase in risk for lung cancer (or any other specific cause of death) was reported among titanium dioxide manufacturing workers.

Ventilation

Use only where appropriate ventilation is available. This product is designed for outdoor use by trained professional personnel only.

Personal protective equipment

Respiratory protection

When used as designed, outdoors in a well-ventilated area, exceeding of the exposure limits is very unlikely unless caused by intentional misuse.

When the exposure limits are exceeded or when working indoors, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) cartridges.

When sanding or abrading dried film, type N95 (US) or type P1 (EN 143) dust masks are suggested.

Hand protection

Handle with gloves that satisfy the specifications of the standard EN 374. Dispose of contaminated gloves after use in accordance with applicable laws and good work hygiene practices.

Eye protection

Safety glasses with side shields are required. Tightly fitting splash goggles are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and body protection

Wear protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash your hands thoroughly. Never intentionally inhale the contents. Use only for the intended purpose.

9. PHYSICAL PROPERTIES

Physical state	Viscous liquid
Color	Yellow
Odor	Mild latex paint, ammonia
Boiling point	±100 ºC
Freezing point	±0 ºC
Flash point	≥200°F (93.3ºC)
Upper explosion limit	No data available
Lower explosion limit	No data available
Solubility in water	Waterborne product
Vapor pressure	No data available
Density	1.5-2.0 g/ml
Viscosity	80-100 KU at 25 ºC
pH	9.0-12.0

10. STABILITY AND REACTIVITY DATA

Chemical stability

Stable.

Possibility of hazardous reactions

None known.

Conditions to avoid

Do not freeze or expose to extreme heat as coalescing may occur.

Materials to avoid

Acids, oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

Other decomposition products: No data available

11. TOXICOLOGICAL DATA

Information for the product as delivered is not available. Data for the individual ingredients is provided below.

Germ cell mutagenicity

Titanium dioxide	Genotoxicity in vitro – hamster – ovary: Micronucleus test. Genotoxicity in vitro – hamster – lungs: DNA inhibition. Genotoxicity in vitro – hamster – ovary: Sister Chromatoid exchange. Genotoxicity in vivo – mouse – Intraperitoneal: Micronucleus test.
Other ingredients	No data available.

Acute toxicity

Name	Oral LD_{50} (mg/kg) rat	Inhalation LC_{50} (mg/m^3/4 h) rat	Dermal LD_{50} (mg/kg) rabbit
Ammonium hydroxide	350 (Gastrointestinal, Liver, Kidney, Ureter, and Bladder)	No data available.	No data available.
Calcium carbonate	6,450	No data available.	No data available.
Hydroxy ester	3,200	>3,550	>15,200
Methyl alcohol	5,628	83,840	15,800
Pigment yellow 65	>5,000 (Not tested: Data from similar products.)	No data available.	No data available.
Titanium dioxide	>10,000	No data available.	>10,000
Other ingredients	No data available.	No data available.	No data available.

Prolonged Exposure

Name	Skin corrosion / irritation	Serious eye damage / irritation	Respiratory or skin sensitization
Ammonium hydroxide	No data available.	Rabbit: Severe eye irritation	No data available.
Calcium carbonate	Rabbit: No skin irritation (OECD Test Guideline 404)	Rabbit: Mild eye irritation (OECD Test Guideline 405)	No data available.
Methanol	Rabbit: Skin irritation (24 h)	Rabbit: Eye irritation (24 h)	No data available.
Pigment yellow 65	No data available.	Not irritant.	No data available.
Titanium dioxide	Human: Mild skin irritation (3 h)	Rabbit: No eye irritation	Will not occur.
Other ingredients	No data available.	No data available.	No data available.

Carcinogenicity

Quartz	IARC: 2A - Group 2A: Probably carcinogenic to humans (Quartz) NTP: Known to be human carcinogen (Quartz) OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Pigment yellow 65	No data available. Supplier's statement: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.
Titanium dioxide	Rat – Inhalation: Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. Rat – Intramuscular: Tumorigenic: Neoplastic by RTECS criteria. Blood: Lymphomas including Hodgkin's disease. Tumors at site or application. IARC: 2B - Group 2B: Possibly carcinogenic to humans (Titanium dioxide).
Other ingredients	Are or contain components that are not classifiable as to their carcinogenicity based on IARC, ACGIH, NTP, or EPA classification.

Reproductive toxicity

No data available.

Teratogenicity

No data available.

Specific target organ toxicity - single exposure (Globally Harmonized System)

Methanol	Causes damage to organs.
Other ingredients	No data available.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available.

Aspiration hazard

No data available

Potential health effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion: Harmful if swallowed.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties of this product (a mixture) have not been thoroughly investigated.

Synergistic effects

No data available.

12. ECOLOGICAL DATA

Toxicity

Ammonium hydroxide	**Fish**: Oncorhynchus tshawytscha (Chinook salmon): 3.57 mg/dm^3 - 3 days (mortality NOEC) **Daphnia and other aquatic invertebrates**: Daphnia magna (water flea): 32 mg/dm^3 - 50 h (LC_{50})
Hydroxy ester	**Fish**: Other fish: 33 mg/dm^3 - 96 h (mortality NOEC) **Daphnia and other aquatic invertebrates**: Daphnid: 147.8 mg/dm^3 - 48 h (EC_{50}) **Algae**: Algae: 15.0 mg/dm^3 - 96 h (EC_{50})
Methanol	**Fish**: Oncorhynchus mykiss (rainbow trout): 19,000 mg/dm^3 - 96 h (LC_{50}) Cyprinus carpio (carp): 36,000 mg/dm^3 - 48 h (LC_{50}) Pimephales promelas (fathead minnow): 1.8 mg/dm^3 - 144 h (mortality NOEC) **Daphnia and other aquatic invertebrates**: Daphnia magna (water flea): 10,000 mg/dm^3 - 24 h (EC_{100}) Daphnia magna (water flea): 24,500 mg/dm^3 - 48 h (EC_{50})
Titanium dioxide	**Fish**: Other fish: >1,000 mg/dm^3 - 96 h (LC_{50}) **Daphnia and other aquatic invertebrates**: Daphnia magna (water flea): 1,000 mg/dm^3 - 48 h (EC_{50})
Other ingredients	No data available.

Persistence and degradability

Hydroxy ester	>77 % (28 days, Ready Biodegradability: CO_2 Evolution Test) Readily biodegradable
All other ingredients	No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

PBT and vPvB assessment

No data available.

Biological oxygen demand

No data available.

Other adverse effects

Data for the entire preparation (a mixture) is not available.

13. DISPOSAL CONSIDERATIONS

Unused or spoiled product

This product may be a hazardous waste per 40 CFR 261 and other regulations. It is the responsibility of the user to determine whether the material meets the hazardous waste criteria and dispose according to the environmental laws. Do not dump into any drain, sewer, or on the ground. Contact a licensed professional waste disposal service to arrange for appropriate removal. Burn the material in a chemical incinerator equipped with an afterburner and scrubber. Do not incinerate closed containers.

Container

Empty packaging may contain product residue and should not be reused. Dispose as of unused product.

14. TRANSPORTATION INFORMATION

Not considered dangerous goods. Not regulated for transportation.
Information is provided for guidance purpose only, not meant to be inclusive. Packaging must be reviewed for suitability and compliance with the applicable regulations prior to shipment.

15. REGULATORY INFORMATION

TSCA and DSL

Listed or exempt.

OSHA Hazards

Irritant, harmful by ingestion.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard.

SARA 302 and 304

To the best of our knowledge, no chemicals in this product are subject to the reporting requirements of SARA Title III, Section 302 (40 CFR 355.30) or Section 304 (40 CFR 355 and 40 CFR 302).

SARA 313

The following are subject to reporting levels established by SARA Title III, Section 313 (40 CFR 372.65):

Ammonium hydroxide (CAS 1336-21-6)
Methanol (CAS 67-56-1)

California Proposition 65

Warning! This product contains trace amount of a chemicals known to the State of California to cause cancer:

Quartz (CAS 14464-46-1)

To the best of our knowledge, this product does not contain chemicals known to the State of California to cause birth defects or other reproductive harm.

Volatile Organic Compounds

Below 100 g/l (calculated per 40 CFR 59.406).

16. ADDITIONAL INFORMATION

This safety data sheet complies with 29 CFR 1910.1200 and with EC 1907/2006, as amended.
Unlimited paper copies of this publication may be made by the users for internal purposes only.
Last modified: Tuesday, 23 February 2016 10:19 (Fully updated SDS.)

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