

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : POP DC GEN 5
 Product Code : 24270 Yellow, 24271 Magenta, 24272 Cyan, 24273 Black, 24276 White

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Polymeric US
 117 East 14th Avenue
 North Kansas City, MO 64116 - USA
 T 816-221-5567

1.4. Emergency telephone number

Emergency number : Chemtel - U.S., Canada, Puerto Rico, U.S. Virgin Islands 1-800-255-3924; International 813-248-0585

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (dermal) Category 4	H312	Harmful in contact with skin
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Carcinogenicity Category 2	H351	Suspected of causing cancer
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure) Category 3	H335	May cause respiratory irritation
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure
Hazardous to the aquatic environment - Acute Hazard Category 3	H402	Harmful to aquatic life
Hazardous to the aquatic environment - Chronic Hazard Category 2	H411	Toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H312 - Harmful in contact with skin
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H335 - May cause respiratory irritation
 H351 - Suspected of causing cancer
 H361 - Suspected of damaging fertility or the unborn child
 H373 - May cause damage to organs through prolonged or repeated exposure
 H402 - Harmful to aquatic life

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Precautionary statements (GHS-US)	H411 - Toxic to aquatic life with long lasting effects : P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P261 - Avoid breathing vapors, spray, mist, fume. P264 - Wash hands, forearms and face thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing must not be allowed out of the workplace P273 - Avoid release to the environment. P280 - Wear eye protection, protective gloves. P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting P302+P352 - If on skin: Wash with plenty of water P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P308+P313 - If exposed or concerned: Get medical advice/attention. P310 - Immediately call a doctor P314 - Get medical advice/attention if you feel unwell. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P391 - Collect spillage. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
1-ethenyl-2-pyrrolidinone, inhibited	(CAS-No.) 88-12-0	15 - 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 3, H402
isobornyl acrylate	(CAS-No.) 5888-33-5	15 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
1,3-butanediol diacrylate	(CAS-No.) 19485-03-1	<22	Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Skin Sens. 1, H317
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	(CAS-No.) 75980-60-8	< 6	Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide	(CAS-No.) 162881-26-7	< 6	Skin Sens. 1, H317 Aquatic Chronic 4, H413
2-hydroxy-2-methylpropiophenone	(CAS-No.) 7473-98-5	< 5	Acute Tox. 4 (Oral), H302

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	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

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First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation 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. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell. Consult a doctor/medical service if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Incompatible products	: Strong bases. Strong acids. Oxidizing agent.
Incompatible materials	: Direct sunlight. Heat sources.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

(19485-03-1)		
Not applicable		
isobornyl acrylate (5888-33-5)		
Not applicable		
1-ethenyl-2-pyrrolidinone, inhibited (88-12-0)		
ACGIH	Local name	N-Vinyl-2-pyrrolidone
ACGIH	ACGIH TWA (ppm)	0.05 ppm
ACGIH	Remark (ACGIH)	Liver dam
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)		
Not applicable		
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide (162881-26-7)		
Not applicable		
2-hydroxy-2-methylpropiophenone (7473-98-5)		
Not applicable		

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Protective goggles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: colors, varied
Odor	: acrylate odor
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 212 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available

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Relative density	: No data available
Solubility	: No data available
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
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content : < 1 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Dermal: Harmful in contact with skin.

(19485-03-1)	
LD50 oral rat	3646 mg/kg (Rat)
LD50 dermal rabbit	464 mg/kg (Rabbit)
ATE US (oral)	3646 mg/kg body weight
ATE US (dermal)	464 mg/kg body weight
(5888-33-5)	
LD50 oral rat	4890 mg/kg (Rat; Literature)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit; Literature)
ATE US (oral)	4890 mg/kg body weight
(88-12-0)	
LD50 oral rat	1022 mg/kg 834-1314,Rat; Equivalent or similar to OECD 401; Experimental value
LD50 dermal rat	1043 mg/kg rat
LD50 dermal rabbit	> 400 mg/kg (Rabbit; Experimental value; BASF test)
LC50 inhalation rat (mg/l)	3.07 mg/l/4h (Rat; Experimental value)
ATE US (oral)	1022 mg/kg body weight
ATE US (dermal)	1043 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	3.07 mg/l/4h
ATE US (dust, mist)	3.07 mg/l/4h
(75980-60-8)	
LD50 oral rat	> 2000 mg/kg (Rat; Literature)

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(162881-26-7)	
LD50 oral rat	> 2000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

(7473-98-5)	
LD50 oral rat	1694 mg/kg (Rat)
LD50 dermal rat	6929 mg/kg (Rat)
ATE US (oral)	1694 mg/kg body weight
ATE US (dermal)	6929 mg/kg body weight

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

(88-12-0)	
IARC group	3 - Not classifiable

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

Specific target organ toxicity – single exposure : May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

(88-12-0)	
LC50 fish 1	976 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 72 h; <i>Oncorhynchus mykiss</i> ; Static system; Fresh water; Experimental value)
EC50 Daphnia 1	45 mg/l (EC50; Equivalent or similar to OECD 202; 48 h; <i>Daphnia</i> sp.; Static system; Fresh water; Experimental value)
Threshold limit algae 1	> 1000 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; <i>Desmodesmus subspicatus</i> ; Static system; Fresh water; Experimental value)

(75980-60-8)	
LC50 fish 1	1 - 10 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 48 h; <i>Oryzias latipes</i>)
EC50 Daphnia 1	10 - 100 mg/l (EC50; OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test; 48 h; <i>Daphnia magna</i>)
Threshold limit algae 1	> mg/l >10/100, EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Algae

(162881-26-7)	
LC50 fish 1	> 0.09 mg/l (LC50; 96 h; <i>Brachydanio rerio</i>)
EC50 Daphnia 1	> 1.175 mg/l (EC50; OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test; 48 h; <i>Daphnia magna</i>)
Threshold limit algae 1	> 0.26 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; <i>Scenedesmus subspicatus</i>)

(7473-98-5)	
LC50 fish 1	160 mg/l (LC50; 96 h)
Threshold limit algae 1	0.64 mg/l (EC50; 72 h)

12.2. Persistence and degradability

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(19485-03-1)	
Persistence and degradability	Biodegradability in water: no data available.
(5888-33-5)	
Persistence and degradability	No test data available. No (test)data on mobility of the substance available.
(88-12-0)	
Persistence and degradability	Readily biodegradable in water. Highly mobile in soil.
Biochemical oxygen demand (BOD)	< 0.002 g O ₂ /g substance
Chemical oxygen demand (COD)	1.894 g O ₂ /g substance
(75980-60-8)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.
162881-26-7)	
Persistence and degradability	Not readily biodegradable in water. No (test)data on mobility of the substance available.
(7473-98-5)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

(19485-03-1)	
Bioaccumulative potential	No bioaccumulation data available.
(5888-33-5)	
Log Pow	4.21 (Estimated value)
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).
(88-12-0)	
Log Pow	0.4 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).
(75980-60-8)	
BCF fish 1	< 40 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; Cyprinidae sp.)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{BCF} < 500$).
(162881-26-7)	
BCF other aquatic organisms 1	< 5 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 28 days)
Log Pow	5.8 (Practical experience/observation; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 20 - 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{BCF} < 500$).
(7473-98-5)	
Log Pow	1.66
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

12.4. Mobility in soil

(88-12-0)	
Log Koc	log Koc,SRC PCKOCWIN v2.0; 1.099 - 1.1497; Calculated value

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Follow all local and state regulations regarding disposal.
Sewage disposal recommendations : Keep out of sewers.

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SECTION 14: Transport information

Department of Transportation (DOT)

Not regulated <119 gallons

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 2-phenoxyethyl acrylate), 9, III
UN-No. (IMDG) : 3082
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG) : III - substances presenting low danger
Limited quantities (IMDG) : 5 L
Marine pollutant : Yes



Air transport

Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s. ((contains Isobornyl Acrylate)), 9, III
UN-No. (IATA) : 3082
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.
Class (IATA) : 9 - Miscellaneous Dangerous Goods
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

All components are either listed or excluded from listing on the United States TSCA (Toxic Substances Control Act) inventory	
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	
EPA TSCA Regulatory Flag	P - P - indicates a commenced Premanufacture Notice (PMN) substance.
phenyl bis(2,4,6-trimethylbenzoyl)phosphine oxide (162881-26-7)	
EPA TSCA Regulatory Flag	P - P - indicates a commenced Premanufacture Notice (PMN) substance.
toluene (108-88-3)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

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National regulations

toluene (108-88-3)

Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

toluene (108-88-3) <400 ppm

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)	Maximum allowable dose level (MADL)
No	Yes	No	No	7000	

1-ethenyl-2-pyrrolidinone, inhibited (88-12-0)

U.S. - New Jersey - Right to Know Hazardous Substance List

toluene (108-88-3)

U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Revision date : 08/29/18

Other information : Polymeric urges the customer receiving this safety data sheet to study it carefully to become aware of the hazards, if any, in the product. In the interest of safety, the customer should (1) notify your employees, agents and contractors of the information included in this SDS and (2) furnish a copy to each of your employees, customers and agents.

Polymeric makes no warranty, express or implied, as to the accuracy or reliability of information contained herein, except that such information is, to the best of Polymeric's knowledge and belief, accurate as of the date indicated on this document. Final determination of suitability of material is the sole responsibility of the user. All the materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Full text of H-phrases:

H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

SDS US (GHS HazCom 2012)

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