

1.0 Identification

1.1 Product Identifier

Product Name: Poloplaz Zenith SemiSatinMatte Part A

Application of the substance/the preparation: Waterborne Polyurethane Wood Finish

1.2 Relevant identified uses of the substance or mixture: Finishes, Coatings and Related Materials:
For Professional Use Only.

1.3 Supplier:

Poloplaz

1 Paradise Park Road

Jacksonville, AR 72076

Telephone: (501) 985-1172

www.poloplaz.com

1.4 Emergency contact:

Infotrac #: 1-800-535-5053

2.0 Hazards Identification

GHS Classification:

Serious eye damage/eye irritation

Category 2A

Reproductive toxicity:

Sub-category 1B

Specific target organ toxicity-single exposure:

Category 3 (central nervous system)

GHS Label element

Hazard Pictograms:



Signal Word: Danger

Hazard Statements:

H302: Harmful if swallowed

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

H336: May cause drowsiness or dizziness

H360: May damage fertility or the unborn child

Precautionary Statements

Prevention:

P102: Keep out of reach of children

P103: Read label before use

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P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P261: Avoid breathing dust/fume/vapours/spray
P264: Wash thoroughly after handling
P270: Do not eat, drink, or smoke when using this product
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection

Response:

P308 + P313 IF exposed or concerned: Get medical advice/attention
P305 + P313 +P337 + P338 + P 351 IF IN EYES: 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.
P302 + P352: IF ON SKIN: Wash with soap and water.
P332 + P313: If skin irritation occurs; Get medical advice/attention
P362: Take off contaminated clothing and wash before reuse.
P304 + P 340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312: Call a POISON CENTER/doctor/if you feel unwell

Storage:

P403 + P233: Store in a well-ventilated place. Keep container tightly closed
P405: Store locked up

Disposal:

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional Information:

Causes mild skin irritation.

3. Composition/information on ingredients:

1-Methyl-2-Pyrrolidione, CAS 872-50-4, % wt 1-5%
Triethylamine, CAS 121-44-8, % wt 1-2%
Dipropylene glycol n-butyl ether, CAS 29911-28-2, 5 wt 1-3%
Dipropylene glycol monomethyl ether, CAS 34590-94-8, 5 wt 1-3%
Silica, amorphous, precipitated, CAS 112926-00-8, % wt < 5%
(Contains no detectable crystalline silica, detection limit < 0.1% by weight)

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First Aid Measures:

Eye Contact

Move individual away from exposure. Immediately flush eyes with large quantities of clean water for at least 15 minutes. Get immediate medical attention

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops or persists

Inhalation

Remove victim to fresh air. Keep warm and quiet. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. GET IMMEDIATE MEDICAL ATTENTION.

Ingestion (Swallowed)

Do not induce vomiting. Potential for aspiration if swallowed. Never give anything by mouth to an unconscious person. GET IMMEDIATE MEDICAL ATTENTION.

Most important symptoms and effects, both acute and delayed.

Most important Symptoms and Effects Irritating to eyes, respiratory system and skin. Drowsiness.

Indication of any immediate medical attention and special treatment needed.

Notes to Physician Treat symptomatically

5. Fire-Fighting Measures

Suitable Extinguishing Media

Carbon dioxide (CO₂), foam, dry chemical, water spray. Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂),
Nitrogen Oxides (NO_x), Isocyanates

Combustion/Explosion Hazards:

This material will not burn unless it is evaporated to dryness. Closed containers may rupture when exposed to extreme heat. Air oxidation of this product may cause it to spontaneously combust. To avoid spontaneous combustion, prevent residue buildup and soak soiled rags, spray-booth filter and over-spray in a closed water-filled metal container.

Protective equipment and precautions for firefighters:

Wear self contained breathing apparatus (SCBA) and full fire fighting protective clothing. Thoroughly decontaminate all protective equipment after use. Evacuate all persons from the fire area to a safe location. Move non-burning material, as feasible to a safe location as soon as possible. Fire fighters should be protected from potential explosion hazard while extinguishing the blaze. Use water spray to cool fire-exposed containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures.

Personal precautions: Evacuate personnel to safe areas. Use person protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

Environmental precautions: Prevent further leakage or spillage, if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and clean up:

Methods for containment: Prevent spilled form 1) contamination in soil, 2) entering sanitary sewers, and drainage systems, and 3) entering bodies of water or ditches that lead to waterways. Prevent spreading over a wide area (e.g. by containment or oil barriers)

Methods for clean-up Soak with inter absorbent material (e.g., sand, silica gel, acid binder, universal binder, sawdust)

7. Handling and storage

Precautions for safe handling

Handling. Avoid breathing vapors or mists. Avoid contact with eyes, skin and clothing. Take off contaminated clothing and wash before reuse. Wash hands before breaks and immediately after handling the product. Use with adequate. Ensure adequate ventilation.

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Conditions for safe storage, including any incompatibilities.

Storage Keep from freezing. Keep containers tightly closed. Keep in a place.

8. Exposure controls/Personal Protection

| CAS-No | Components | Value type (Form of Exposure) | Control parameters/ Permissible concentration | Basis |
|------------|--|-------------------------------------|---|--------------------------|
| 872-50-4 | 1-methyl -2-pyrrolidinone | WEEL | Can be absorbed through skin 40 mg/m ³ 10 ppm | ACGIH |
| | | TWA | 400 mg/m ³ | Canada Ontario OEL |
| 121-44-8 | triethylamine | TLV | 1 ppm TWA (skin) 3 ppm STEL A4, not classified as a Human Carcinogen | ACGIH |
| | | PEL-TWA | 25 ppm | OSHA |
| | | IDLH | 200 ppm | NIOSH |
| 29911-28-2 | dipropylene Glycol, n-butyl- | TWA (Aerosol) | 10 mg/m ³ | DOW IHG |
| 34590-94-8 | dipropylene Glycol, mono- Methyl ether | TWA | 100 ppm | ACGIH |
| | | STEL | 150 ppm | ACGIH |
| | | ST | 150 ppm | NIOSH REL |
| | | TWA | 100 ppm | NIOSH REL |
| | | TWA | 100 ppm | OSHA Z-1 |
| | | TWA | 100 ppm | OSHA PO |
| | | STEL | 150 ppm | OSHA PO |

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| | | | |
|-------------|---------------------------------------|---------|-----------------------------|
| 112926-00-8 | Silicon Dioxide PC-TWA (amorphous) | 5 mg/m3 | GBZ-2 (China, 4/2007) |
|-------------|---------------------------------------|---------|-----------------------------|

Appropriate Engineering Controls

Engineering controls: Use general ventilation to maintain airborne concentration to levels that are below regulatory and recommended occupation exposure limits. Good general ventilation should be sufficient to control airborne levels of irritating vapors. Local ventilation may be required during certain operations.

Individual protection measures, such as personal protective equipment.

Eye/face protection: Safety glass with side-shield., if splashes are likely to occur. Tight sealed safety goggles. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin Protections: Gloves made of butyl rubber. Please observe the instructions regarding permeability and breakthrough time which are proved by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Chemical resistant apron, boots.

Respiratory protection: None required if hazards have been assessed and airborne concentrations are maintained below the exposure limits listed in Section 8. Wear an approved air-purifying respirator with organic vapor cartridges where airborne concentrations may exceed exposure limits in Section 8. Use an approved positive-pressure air-supplied respirator with emergency escape provisions if there is any potential from an uncontrolled release, airborne concentrations are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

General hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| | |
|------------------------------|--------------------------|
| Appearance | whitish |
| Odor | mild amine |
| Odor Threshold | No information available |
| Physical state | liquid |
| pH | 7.5-9 |
| Flashpoint | > 93 °C |
| Autoignition Temperature | No information available |
| Boiling range | 100-202 °C |
| Melting point/freezing point | No information available |
| Flammability Limit in Air | |

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| | |
|--|---------------------------|
| Lower | No information available |
| Upper | No information available |
| Specific Gravity | 1.04 |
| Solubility | Dispersible in water |
| Evaporation Rate | < 1 (BuAC =1) |
| Vapor Pressure | 17.5 mm Hg @ 20 °C |
| Vapor Density | > 1 (Air =1) |
| Percent Volatile | 70 |
| VOC content | < 275 g/l-2.29 lbs/gal |
| Viscosity | 25-45 cps |
| Partition Coefficient (n-octanol/water) | No information available |
| Decomposition Temperature | No information available. |

10. Stability and Reactivity

Reactivity: No dangerous reaction known under conditions of normal use.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous Polymerization does not occur.

Conditions to Avoid

Freezing temperatures, Contamination by those materials referred to under incompatible materials.

Incompatible materials: Strong acids. Strong bases. Strong oxidizing agents. Reducing agents.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide (CO₂) Hydrocarbons, Nitrogen oxides (NO_x), Isocyanates

11. Toxicological Information

Information on likely routes of exposure

Primary Routes of Entry Skin contact, Ingestion, Inhalation, Eye Contact, skin absorption

Acute toxicity

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1-methyl2-pyrrolidinone

| | |
|-------------|-----------------------|
| Oral LD50 | > 4150 mg/kg (rat) |
| Dermal LD50 | > 2500 mg/kg (rat) |
| | > 5000 mg/kg (rabbit) |

triethylamine

| | |
|-------------|--------------------|
| Oral LD50 | 460 mg/kg (rat) |
| Dermal LD50 | 416 mg/kg (rabbit) |

29911-28-2

| | |
|-----------------|---|
| Oral LD50 | 3700 mg/kg (rat) |
| Dermal LD50 | >2000 mg/kg (rat) |
| Inhalation LC50 | Not determined, No deaths at this concentration. LCO, 4h, Aerosol, rat > 2.04 mg/l |

34590-94-8

| | |
|-----------------|---------------------------------|
| Oral LD50 | > 5,000 mg/kg (rat) |
| Dermal LD50 | 9,510 mg/kg (rabbit) |
| Inhalation LC50 | > 30000 ppm (rat, male, female) |

Information on toxicological effects

Symptoms: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effect from short and long-term exposure.

Eyes: Causes serious eye irritation

Skin: Mild skin irritant. Repeated exposure may cause skin dryness or cracking. Harmful by skin absorption

Inhalation: Inhalation of vapors in high concentration may cause irritation of respiratory system. Inhalation of high vapor concentrations can cause CNS-depression and narcosis.

Ingestion: Ingestion (swallowing) may irritate the mouth, throat and stomach. Ingestion is not an anticipated route of exposure for this material in industrial use.

Irritation: Irritating to eyes, respiratory system and skin.

Corrosivity: Not corrosive.

Sensitization: Not sensitizing

Carcinogenicity: Group A4-Not classifiable as a human carcinogen.

Reproductive toxicity: Adverse effects on reproduction have been reported in rats after ingestion of amounts of 1-methyl-2-pyrrolidinone which also caused mild generalized changes in the parental animals. Fetal effects have been noted in pregnant animals exposed by ingestion, inhalation and skin contact, and occurred both in the presence and absence of maternal toxicity.

Target Organs: Eyes, central vascular system (CVS), kidney, liver, central nervous system (CNS), and respiratory system.

12. Ecological Information:

1-methyl-2-pyrrolidinone

Log Kow, -0.46

EC50 > 500 mg/l (algae-72h)

LC 50 = 832 mg/l Fish (Lepomis macrochirus-96h)

EC50 = 4897 mg/l (water flea-48h)

Toxicity to fish: LL50 25 mg/l

Toxicity to daphnia: EL50 1.4 mg/l

Toxicity to algae: EL50 1-3 mg/l

Triethylamine

Log Kow, 1.45

Bioconcentration Factor, < 4.9

LC 50 = 43.7 mg/l Fish (Pimephales promelas-96h)

EC50 = 200 mg/l (water flea-48h)

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LC50-Fish (Poecilia reticulata (guppy), static test, 96h, 841 mg/l

LC50-, Daphnia magna (water flea), static test, 48h, immobilization, > 1,000 gm/l

OECD 301E, Biodegradation Test, 91%, 28d

OECD 301A, Biodegradation Test, 95%, 28d

OECD 302B, Biodegradation Test, 96%, 28d

Indirect Photodegradation with OH Radicals

Rate constant, 4.97E-11 cm³/s, atmospheric half life, 2.6h, Method-estimated

Theoretical oxygen demand-2.35mg/mg

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Bioaccumulative potential-low, (BCF < 100 or Log Pow < 3)
Partition coefficient, n-octanol/water (log Pow): 1.523 (estimated)

Mobility in Soil, potential is very high (Koc between 0 and 50)
Partition coefficient, soil organic carbon/water (Koc); 10-21 Estimated
Henry's Law Constant (h): 3.78E-07 atm*m3/mole 25 °C, estimated.

34590-94-8

LC50-Fish (Poecilia reticulata (guppy), static test, 96h, > 1.000 mg/l
LC50-, Daphnia magna (water flea), static test, 48h, immobilization, 1,919 gm/l
EC50 (Pseudokirchneriella subcapitata): > 100 mg/l/72 h
No toxicity at the limit of solubility

OECD 301F Biodegradation Test, 76%, 28d

Bioaccumulative potential-this substance has low potential for bioaccumulation.
Partition coefficient, n-octanol/water (log Pow): -0.06 (20 °C)

Silica, amorphous: NOEC > 1000 ppm, Species-Daphnia magna, 24h
Acute NOEC > 10000 ppm Fresh Water, Species-Fish, 96 h, static
Acute NOEC > 10000 ppm, Species-Fish-Brachydanio rerio, 4 days, static
Biodegradability-Not readily
Bioaccumulative Log Pow-, BCF-0, Potential-low
Mobility in soil-Soil/water partition: Not Available
Other: No known significant effects or critical hazards

Do not empty into drains; dispose of this material its container in a safe way. Avoid dispersal of spilled material and runoff and runoff and contact with soil, waterways, drains and sewers.

13. Disposal Considerations

Disposal methods

Disposal Considerations: NOT A RCRA HAZARDOUS WASTE. When discarded in its purchased form, this material would not be regulated as a RCRA Hazardous waste under 40 CFR 261.

Contaminated packaging:

Empty remaining contents.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty container.

Empty containers should be taken for local recycling, recovery or waste disposal.

14. Transport Information

DOT: Not regulated

Canada (TDG): Not Regulated.

IATA: Not Regulated

IMDG: Not Regulated

15. Regulatory information

International Inventories

TSCA: United States: Yes-All components are listed or exempt

DSL: Canada Yes-All components are listed or exempt

Federal Regulations

SARA 311/312 categorization

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | Yes |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

SARA313: This material contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 CFR, Part 372:

| | | | |
|--------------------------|--------------|-----------|------------------|
| 1-methyl-2-pyrrolidinone | CAS 872-50-4 | % wt 1-5% | Listed, SARA 313 |
| Triethylamine | CAS 121-44-8 | %wt 1-2% | Listed, SARA 313 |

Clean Water Act:

This product contains the following listed substances:

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Triethylamine CAS 121-44-8 CWA-Reportable Quantities-5000 lbs.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs, see 40 CFR 61):

This product contains the following listed substances:

Triethylamine CAS 121-44-8 %wt 1-2%

CERCLA

This product contains the reportable quantities:

Triethylamine CAS 121-44-8 40 CFR 302.4 RQ-5000 lb, 2270 kg

California Proposition 65: This product contains a chemical known to the state of California to cause cancer or reproductive harm.

16. Other information

NFPA: Health: 2 Flammability: 1 Reactivity: 0

We recommend containers be either professionally reconditioned for reuse by certified firms or properly disposed of by certified firms to help reduce the possibility of an accident. Disposal of containers should be in accordance with applicable Federal, State, and Local laws and regulations. Empty drums should not be given to individuals.

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