# Safety Data Sheet
# PEC-12®

**SDS Revision Date** **01/01/2021**

## 1. Identification

**1.1. Product identifier**

| | |
|---|---|
| **Product Identity** | PEC-12® |
| **Alternate Names** | none |

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

| | |
|---|---|
| **Intended use** | PEC-12® is intended for removing non-water based stains, markings and debris from conventional silver-based photographic emulsions (films and/or prints whether in color or B&W). It is best to spray a few drops onto a soft lint free applicator and then wipe the moistened applicator lightly over the area to be cleaned. |
| **Application Method** | See Technical Data Sheet. |

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

| | |
|---|---|
| **Company Name** | Photosol, Inc. dba Photographic Solutions<br>318 Seaboard Ave. Venice, FL 34285 USA |
| **Emergency** | |
| **CHEMTREC (USA)** | +1-703-527-3887 **CCN17280** |
| **Customer Service: Photosol, Inc. dba Photographic Solutions** | Phone (941) 445-2231 |

## 2. Hazard(s) identification

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

| | |
|---|---|
| Flam. Liq. 3;H226 | Flammable liquid and vapor. |
| STOT SE 3;H336 | May cause drowsiness or dizziness. |

**2.2. Label elements**

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



**Warning**

H226 Flammable liquid and vapor.

H336 May cause drowsiness and dizziness.

**[Prevention]:**

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P235 Keep cool.

P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

**[Response]:**

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

**[Storage]:**

P403+233 Store in a well ventilated place. Keep container tightly closed.

P405 Store locked up.

**[Disposal]:**

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

## 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|---|---|---|---|
| **Ethanol**<br>**CAS Number: 0000064-17-5** | **75 - 100** | **Flam. Liq. 2;H225** | **[1][2]** |
| **N-Butyl Acetate**<br>**CAS Number: 0000123-86-4** | **10 - 25** | **Flam. Liq. 3;H226**<br>**STOT SE 3;H336** | **[1][2]** |

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.
[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.




## 4. First aid measures

### 4.1. Description of first aid measures

**General** In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

**Inhalation** Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes** Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

**Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

**Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

**Overview** Causes Eye Irritation
Ingestion may cause blindness.
Avoid prolonged breathing of vapors as it may cause dizziness, nausea and/or headache.
Avoid prolonged and/or repeated skin contact as it may cause drying, cracking and/or irritation.

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

**Inhalation** May cause drowsiness or dizziness.

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Use a dry chemical carbon dioxide (CO2), or foam. Keep fire exposed containers cool with a water spray. Water may be ineffective in fire-fighting.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Carbon dioxide, carbon monoxide

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust / fume / gas / mist / vapors / spray.

### 5.3. Advice for fire-fighters

Wear self-contained breathing apparatus and protective clothing.
Vapors may travel a considerable distance causing a flash fire or flashback.

None

**ERG Guide No.** 128

## 6. Accidental release measures

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

Put on appropriate personal protective equipment (see section 8).

### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Collect in flammable waste container for disposal.

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

Procedures to be used in case of leak/spill: Eliminate all ignition sources. Assure adequate ventilation and/or respirators for clean-up personnel. For large spills use water spray to disperse vapors and flush spill area. Prevent runoff from entering drains, sewers and streams. Wipe smaller spills with untreated clean cloths, wipes or vermiculite. Dispose of same by incineration.
Waste Disposal: Dispose of minute excess by placing container out doors and allow to evaporate.

## 7. Handling and storage

### 7.1. Precautions for safe handling

Product should be sprayed into a cloth or swab (the applicator) by lightly and partially depressing sprayer. Applicator should be touching sprayer when spraying as this will eliminate a large percentage of product from becoming airborne and significantly reduce wasting product. When used as directed and intended, this product does not require special handling procedures, HOWEVER, when product is in constant or repeated use, adequate ventilation must be provided, and protective gloves should be worn. Because PEC-12 is designed to remove skin oils from film/prints, persons with chronically dry or sensitive skin, eczema, etc. should wear gloves regardless of frequency of handling.

See section 2 for further details. - [Prevention]:

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

Handle containers carefully to prevent damage and spillage.

Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks and electrical equipment are protected to the appropriate standard.

Incompatible materials: CBI#1 : This ingredient is incompatible and causes violent reactions or ignitions with the following substances : Acetyle Bromide, Platinum, Potassium tert-butoxide, Phosphorus III oxide, Sodium, and Disulfuryl DiFloride (violent reaction when mixed at ambient temperatures)
CBI#2 : This ingredient is incompatible with Potassium tert-butoxide

Store away from heat and/or ignition sources, open flames, etc. For added safety, a storage cabinet specifically designed for flammable liquids should be utilized.

See section 2 for further details. - [Storage]:

### 7.3. Specific end use(s)

No data available.

## 8. Exposure controls and personal protection

### 8.1. Control parameters

**Exposure**

| CAS No. | Ingredient | Source | Value |
|---|---|---|---|
| 0000064-17-5 | Ethanol | OSHA | TWA 1000 ppm (1900 mg/m3) |
| | | ACGIH | STEL: 1000 ppm Revised 2009, |
| | | NIOSH | TWA 1000 ppm (1900 mg/m3) |
| | | Supplier | No Established Limit |
| 0000123-86-4 | N-Butyl Acetate | OSHA | TWA 150 ppm (710 mg/m3 |
| | | ACGIH | TWA: 20 ppmS |
| | | NIOSH | TWA 150 ppm (710 mg/m3) ST 200 ppm (950 mg/m3) |
| | | Supplier | No Established Limit |

**Carcinogen Data**

| CAS No. | Ingredient | Source | Value |
|---|---|---|---|
| 0000064-17-5 | Ethanol | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0000123-86-4 | N-Butyl Acetate | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |




**8.2. Exposure controls**

| | |
|---|---|
| **Respiratory** | A respirator for organic solvents should be used if airborne cannot be maintained below recommended limits (12 air changes per hour or 850ppm). |
| **Eyes** | Safety goggles or safety glasses with side shields. |
| **Skin** | Gloves should be worn for prolonged or repeated contact. A high quality plastic examination glove should be adequate. Use neoprene or rubber gloves or PVC. |
| **Engineering Controls** | Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn. |
| **Other Work Practices** | Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. |

See section 2 for further details. - [Prevention]:

## 9. Physical and chemical properties

| | |
|---|---|
| **Appearance** | Colorless Liquid |
| **Odor** | Fruity |
| **Odor threshold** | 850 Not Measured |
| **pH** | 7.0 |
| **Melting point / freezing point** | +/- (-100°F) |
| **Initial boiling point and boiling range** | 165°F |
| **Flash Point** | 75°F using Tag Closed Cup method |
| **Evaporation rate (Ether = 1)** | >1 (Butyl Acetate=1) |
| **Flammability (solid, gas)** | Not Applicable |
| **Upper/lower flammability or explosive limits** | **Lower Explosive Limit:** 2% volume in air STP<br>**Upper Explosive Limit:** 15% volume in air STP |
| **Vapor pressure (Pa)** | 43.2 mmHg at 68°F |
| **Vapor Density** | >1 (Air=1) |
| **Specific Gravity** | 0.824 at 77°F (Water=1) |
| **Solubility in Water** | Soluble |
| **Partition coefficient n-octanol/water (Log Kow)** | Not Measured |
| **Auto-ignition temperature** | +/- 750°F |
| **Decomposition temperature** | Not Measured |
| **Viscosity (cSt)** | Not Measured |
| **Coefficient of Water/Oil Distribution** | No Oil or Water Present |
| **Sensitivity to Mechanical Impact** | Insensitive at 550 inch pounds |
| **Sensitivity to Static Discharge** | Not Available |




### 9.2. Other information

No other relevant information.

## 10. Stability and reactivity

### 10.1. Reactivity

Reactive on exposure to strong oxidizing agents. Flammable exposure to sparks and open flame.

### 10.2. Chemical stability

Stable under normal circumstances.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

High temperatures and fires.

### 10.5. Incompatible materials

CBI#1 : This ingredient is incompatible and causes violent reactions or ignitions with the following substances : Acetyle Bromide, Platinum, Potassium tert-butoxide, Phosphorus III oxide, Sodium, and Disulfuryl DiFloride (violent reaction when mixed at ambient temperatures)
CBI#2 : This ingredient is incompatible with Potassium tert-butoxide

### 10.6. Hazardous decomposition products

Carbon dioxide, carbon monoxide

## 11. Toxicological information

### Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapor LC50, mg/L/4hr | Inhalation Dust/Mist LC50, mg/L/4hr | Inhalation Gas LC50, ppm |
|---|---|---|---|---|---|
| Ethanol - (64-17-5) | 7,060.00, Rat - Category: NA | 20,000.00, Rabbit - Category: NA | 124.70, Rat - Category: NA | No data available | No data available |
| N-Butyl Acetate - (123-86-4) | 10,700.00, Rat - Category: NA | 17,600.00, Rabbit - Category: NA | No data available | No data available | No data available |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

| Classification | Category | Hazard Description |
|---|---|---|
| Acute toxicity (oral) | --- | Not Applicable |
| Acute toxicity (dermal) | --- | Not Applicable |
| Acute toxicity (inhalation) | --- | Not Applicable |
| Skin corrosion/irritation | --- | Not Applicable |
| Serious eye damage/irritation | --- | Not Applicable |
| Respiratory sensitization | --- | Not Applicable |
| Skin sensitization | --- | Not Applicable |
| Germ cell mutagenicity | --- | Not Applicable |
| Carcinogenicity | --- | Not Applicable |
| Reproductive toxicity | --- | Not Applicable |
| STOT-single exposure | 3 | May cause drowsiness or dizziness. |
| STOT-single exposure | --- | Not Applicable |
| STOT-repeated exposure | --- | Not Applicable |
| Aspiration hazard | --- | Not Applicable |

## 12. Ecological information

### 12.1. Toxicity

Toxic to aquatic life

**Aquatic Ecotoxicity**

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|---|---|---|---|
| Ethanol - (64-17-5) | 42.00, Oncorhynchus mykiss | 2.00, Daphnia magna | 17.921 (96 hr), Ulva pertusa |
| N-Butyl Acetate - (123-86-4) | 18.00, Pimephales promelas | 32.00, Artemia salina | 674.70 (72 hr), Scenedesmus subspicatus |




### 12.2. Persistence and degradability

This summary is designed to provide assistance should an accidental spill occur during shipment and does not address discharges to sanitary sewers or publicly owned treatment facilities. This product is expected to have a high BOD (Biochemical Oxygen Demand) and a potential to cause oxygen depletion in aquatic systems. It has a low potential to affect aquatic organisms and a low potential to persist in the environment. When diluted with large volumes of water, this product is not expected to have a significant impact as it is readily biodegradable and is not expected to bioconcentrate.

### 12.3. Bioaccumulative potential

Product is readily biodegradable and is not expected to bioconcentrate.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

### 12.6. Other adverse effects

No data available.

## 13. Disposal considerations

### 13.1. Waste treatment methods

Destroy by liquid incineration. Use absorbent material and deposit in toxic landfill in accordance with local, state, and federal regulations.

## 14. Transport information

**DOT :** Not regulated. If packaged according to DOT and/or carrier's requirements for ground/surface transport for LIMITED QUANTITY

**IATA :** Consumer Commodity, ID8000
Class 9 Packing Instruction 910 (There is no Packing Group Designation)
For International air shipments only

**IMDG :** Regulated. (UN1993)
Page # 3230
Flammable Liquid NOS & Marine Pollutant

This product may be shipped via surface (ground) services if properly packaged and marked as a LIMITED QUANTITY. Consult carrier regulations for packaging requirements and suitability of mailing of LTD QTTY materials.




## 15. Regulatory information

| | |
|---|---|
| **Regulatory Overview** | The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. |
| **Toxic Substance Control Act ( TSCA)** | All components of this material are either listed or exempt from listing on the TSCA Inventory. |
| **WHMIS Classification** | B2 |
| **US EPA Tier II Hazards** | **Fire:** Yes |
| | **Sudden Release of Pressure:** No |
| | **Reactive:** No |
| | **Immediate (Acute):** Yes |
| | **Delayed (Chronic):** No |

**EPCRA 311/312 Chemicals and RQs (lbs):**

N-Butyl Acetate ( 5,000.00)

**EPCRA 302 Extremely Hazardous:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**EPCRA 313 Toxic Chemicals:**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Carcinogens (>0.0%):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Developmental Toxins (>0.0%):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Female Repro Toxins (>0.0%):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**Proposition 65 - Male Repro Toxins (>0.0%):**
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

**New Jersey RTK Substances (>1%):**

Ethanol

N-Butyl Acetate

**Pennsylvania RTK Substances (>1%):**

Ethanol

N-Butyl Acetate

PHOTOGRAPHIC SOLUTIONS

## 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H226 Flammable liquid and vapor.

H336 May cause drowsiness and dizziness.

**This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.**

This product is sold for professional photographic use only. It is not to be used or sold for personal, family or household use. Manufacturer can assume no liability if product is used in any manner inconsistent with its labeling or intent.
The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable and suitable to their circumstances.

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