SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Preservative – Benzoic Acid +2 PF

Recommended use of the chemical and restrictions on use

Use of the Substance: Preservative

Details of supplier of safety data sheet:
Crafter’s Choice Brands, LLC
7820 East Pleasant Valley Road
Independence, OH 44131
(800) 908-7028
www.Crafters-Choice.com

Emergency telephone number - ChemTel
(800) 255-3924 Domestic USA, Canada, Puerto Rico and US Virgin Islands
+1 (813) 248-0585 International

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral) Category 4
Skin irritation Category 2
Serious eye damage Category 1

GHS Label element
Hazard pictograms

Signal Word
Danger

Hazard Statements
Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.

Precautionary Statements
Prevention:
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear eye protection/ face protection.
Wear protective gloves.

**Response:**
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.

**Disposal:**
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**
None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance / Mixture**: Mixture

<table>
<thead>
<tr>
<th>Hazardous components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
</tr>
<tr>
<td>2-PHENOXYETHANOL</td>
</tr>
<tr>
<td>BENZOIC ACID</td>
</tr>
<tr>
<td>3-ACETYL-6-METHYL-2H-PYRAN-2,4(3H)-DIONE</td>
</tr>
</tbody>
</table>

**SECTION 4. FIRST AID MEASURES**

**General advice**
Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If inhaled
- If breathed in, move person into fresh air.
- If unconscious place in recovery position and seek medical advice.
- If symptoms persist, call a physician.

In case of skin contact
- Remove contaminated clothing. If irritation develops, get medical attention.
- If on skin, rinse well with water.
- Wash contaminated clothing before re-use.

In case of eye contact
- In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Continue rinsing eyes during transport to hospital. Remove contact lenses.
- Protect unharmed eye.

If swallowed
- Obtain medical attention. Do NOT induce vomiting. Rinse mouth with water.
- Do not give milk or alcoholic beverages.
- Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed
- Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
  - Stomach or intestinal upset (nausea, vomiting, diarrhea)
  - Irritation (nose, throat, airways)
  - Cough
  - Pain in the abdomen and lower back
  - Shortness of breath
  - Acute kidney failure (sudden slowing or stopping of urine production)
  - Convulsions
  - Harmful if swallowed.
  - Causes skin irritation.
  - Causes serious eye damage.

Notes to physician
- No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Water spray
- Foam
- Carbon dioxide (CO2)
- Dry chemical
Unsuitable extinguishing media

High volume water jet

Specific hazards during firefighting

If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products

Carbon dioxide and carbon monoxide
Hydrocarbons
Acrid smoke and fumes

Specific extinguishing methods

Product is compatible with standard fire-fighting agents.

Further information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

Other information

Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling

Do not breathe vapors/dust. Do not smoke. Container hazardous when empty.
Avoid contact with skin and eyes. 
Smoking, eating and drinking should be prohibited in the application area. 
For personal protection see section 8. 
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage 
Keep container tightly closed in a dry and well-ventilated place. 
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures 
Provide sufficient mechanical (general and/or local exhaust), ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Hand protection 
Remarks 
The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection 
Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
Maintain eye wash station in immediate work area.

Skin and body protection 
Wear as appropriate:
Impervious clothing
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place. Discard gloves that show tears, pinholes, or signs of wear. Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures 
Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>yellow</td>
</tr>
<tr>
<td>Odor</td>
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</tr>
<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>pH</td>
<td>4, (20 °C)</td>
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<tr>
<td>Melting point/freezing point</td>
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<tr>
<td>Boiling point/boiling range</td>
<td>&gt; 302 °F / &gt; 150 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>266 °F / 130 °C</td>
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<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
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<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
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<tr>
<td>Vapor pressure</td>
<td>&lt; 1 hPa</td>
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<tr>
<td>Relative vapor density</td>
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</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>ca. 1.13 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>5 g/l (20 °C)</td>
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<tr>
<td>Solubility in other solvents</td>
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</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
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<tr>
<td>Viscosity</td>
<td></td>
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<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>
SECTION 10. STABILITY AND REACTIVITY

Reactivity
No decomposition if stored and applied as directed.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
Product will not undergo hazardous polymerization.

Conditions to avoid
Excessive heat
Do not allow evaporation to dryness.

Incompatible materials
Reducing agents
Strong bases
Strong oxidizing agents

Hazardous decomposition products
Carbon dioxide and carbon monoxide
Hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity
Harmful if swallowed.

Components:

2-PHENOXYETHANOL:
Acute oral toxicity
LD 50 (Rat): 1,850 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.

BENZOIC ACID:
Acute oral toxicity
LD 50 (Rat): ca. 2,565 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity
LC 50 (Rat): > 12.2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity
LO 50 (Rabbit): > 2,000 mg/kg
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

3-ACETYL-6-METHYL-2H-PYRAN-2,4(3H)-DIONE:
Acute oral toxicity
LD 50 (Rat): 570 mg/kg

**Skin corrosion/irritation**
Causes skin irritation.

**Product:**
Remarks: May cause skin irritation and/or dermatitis.

**Components:**
2-PHENOXYETHANOL:
Species: Rabbit
Result: Not irritating to skin

BENZOIC ACID:
Result: Irritating to skin

**Serious eye damage/eye irritation**
Causes serious eye damage.

**Product:**
Remarks: May cause irreversible eye damage.

**Components:**
2-PHENOXYETHANOL:
Species: Rabbit
Result: Irritating to eyes

BENZOIC ACID:
Species: Rabbit
Result: Corrosive to eyes

**Respiratory or skin sensitization**
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

**Components:**
2-PHENOXYETHANOL:
Species: Guinea pig
Assessment: Does not cause skin sensitization.
Method: OECD Test Guideline 406

BENZOIC ACID:
Test Type: Local lymph node assay
Species: Mouse
Assessment: Does not cause skin sensitization.

**Germ cell mutagenicity**
Not classified based on available information.

**Components:**
2-PHENOXYETHANOL:
Genotoxicity in vitro
Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

BENZOIC ACID:
Genotoxicity in vitro
Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Further information
Product:
Remarks: No data available

Carcinogenicity:
IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Components:
2-PHENOXYETHANOL:
Toxicity to fish
LC 50 (Fathead minnow (Pimephales promelas)): 337 - 352 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates
EC50 (Daphnia magna (Water flea)): > 500 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae
NOEC (Desmodesmus subspicatus (green algae)): > 500 mg/l
End point: Growth inhibition
Toxicity to fish (Chronic toxicity)

**NOEC (Pimephales promelas (fathead minnow)): 23 mg/l**
Exposure time: 34 d
Test Type: flow-through test
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

**NOEC (Daphnia (water flea)): 9.43 mg/l**
Exposure time: 21 d
End point: Reproduction Test
Test Type: semi-static test
Method: OECD Test Guideline 211

**Persistence and degradability**

**Components:**

**2-PHENOXYETHANOL:**

Result: Readily biodegradable
Biodegradation: 99 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

**BENZOIC ACID:**

Exposure time: 72 h
Test Type: static test

**LC 50 (Western mosquitofish (Gambusia affinis)): 240 mg/l**
Exposure time: 24 h
Method: Static
Remarks: Mortality

**LC 50 (Bluegill (Lepomis macrochirus)): 44.6 mg/l**
Exposure time: 96 h

**LC 50 (Water flea (Daphnia magna)): > 100 mg/l**
Exposure time: 48 h

**NOEC (Pseudokirchneriella subcapitata (green algae)): 10 mg/l**
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

**NOEC (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l**
Exposure time: 28 d
Test Type: semi-static test
Method: OECD Test Guideline 204

**NOEC (Daphnia magna (Water flea)): >= 25 mg/l**
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211

**Result:** Readily biodegradable
Biodegradation: 99 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Biodegradability

Result: Readily biodegradable

**Bio accumulative potential**

**Components:**

**2-PHENOXYETHANOL:**
Partition coefficient: n-octanol/water

log Pow: 1.16

**BENZOIC ACID:**
Bioaccumulation
Species: Western mosquitofish (Gambusia affinis)
Bioconcentration factor (BCF): 21
Exposure time: 24 h
Concentration: 0.00178 mg/l
Method: Static

Partition coefficient: n-octanol/water

log Pow: 1.87

**Mobility in soil**

**Components:**
No data available

**Other adverse effects**
No data available

**Product:**
Additional ecological information

No data available

**Components:**

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

**General advice**

Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

**Contaminated packaging**

Empty remaining contents.

Dispose of as unused product.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Do not re-use empty containers.
SECTION 14. TRANSPORT INFORMATION

International transport regulations

<table>
<thead>
<tr>
<th>Regulation</th>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
</tr>
</thead>
</table>

**U.S. DOT – ROAD**
Not dangerous goods

**U.S. DOT – RAIL**
Not dangerous goods

**U.S. DOT - INLAND WATERWAYS**
Not dangerous goods

**TRANSPORT CANADA – ROAD**
Not dangerous goods

**TRANSPORT CANADA – RAIL**
Not dangerous goods

**TRANSPORT CANADA – INLAND WATERWAYS**
Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS**
Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION – CARGO**
Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION – PASSENGER**
Not dangerous goods

**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**
Not dangerous goods

* ORM = ORM-D, CBL = COMBUSTIBLE LIQUID
Marine Pollutant

No

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RA (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZOIC ACID</td>
<td>65-85-0</td>
<td>5000</td>
<td>41666.66667</td>
</tr>
</tbody>
</table>

SARA 3111312 Hazards

Acute Health Hazard

SARA 313 Component(s)

2-PHENOXYETHANOL 122-99-6 80.00 %

Pennsylvania Right to Know

2-PHENOXYETHANOL 122-99-6 70.00 - 90.00 %

BENZOIC ACID 65-85-0 10.00 - 20.00 %

3-ACETYL-6-METHYL-2H-PYRAN-2,4(3H)-DIONE 520-45-6 5.00 - 10.00 %

New Jersey Right to Know

2-PHENOXYETHANOL 122-99-6 70.00 - 90.00 %

BENZOIC ACID 65-85-0 10.00 - 20.00 %

3-ACETYL-6-METHYL-2H-PYRAN-2,4(3H)-DIONE 520-45-6 5.00 - 10.00 %

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

- **TSCA**: On TSCA Inventory
- **DSL**: All components of this product are on the Canadian DSL.
- **AUSTTR**: On the inventory, or in compliance with the inventory
ENCS  On the inventory, or in compliance with the inventory
KECL  On the inventory, or in compliance with the inventory
PICCS  On the inventory, or in compliance with the Inventory
IECSC  On the inventory, or in compliance with the inventory

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZloC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information: Revision Date: 05/21/2015

NFPA:

NFPA Flammable and Combustible Liquids Classification
Combustible Liquid Class 1118

Full text of H-Statements referred to under sections 2 and 3.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.

Sources of key data used to compile the Safety Data Sheet
Internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonized classification for labelling (GHS) and transport.
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.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:
ACGIH: American Conference of Industrial Hygienists
BEI: Biological Exposure Index
CAS: Chemical Abstracts Service (Division of the American Chemical Society).
CMR: Carcinogenic, Mutagenic or Toxic for Reproduction
FG: Food grade
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement: Hazard Statement
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization
ICAO-TI (ICAO): Technical Instructions by the "International Civil Aviation Organization"
IMDG: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
logPow: octanol-water partition coefficient
LCxx: Lethal Concentration, for xx percent of test population
LDxx: Lethal Dose, for xx percent of test population.
ICxx: Inhibitory Concentration for xx of a substance
Ecxx: Effective Concentration of xx
N.O.S.: Not Otherwise Specified
OECD: Organization for Economic Co-operation and Development
OEL: Occupational Exposure Limit
P-Statement: Precautionary Statement
PBT: Persistent, Bio accumulative and Toxic
PPE: Personal Protective Equipment
STEL: Short-term exposure limit
STOT: Specific Target Organ Toxicity
TLV: Threshold Limit Value
TWA: Time-weighted average
vPvB: Very Persistent and Very Bioaccumulative
WEL: Workplace Exposure Level

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
DOT: Department of Transportation
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC: Hazardous Materials Information Review Commission
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PMRA: Health Canada Pest Management Regulatory Agency
RTK: Right to Know
WHMIS: Workplace Hazardous Materials Information System