



BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/05/2013

Revision date: 01/03/2015

Supersedes: 01/19/2011

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : BPD5 Blood Print Lifter Solution
Product code : BPD5

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

Use of the substance/mixture : Laboratory chemical

1.3. Details of the supplier of the safety data sheet

SIRCHIE Finger Print Laboratories
100 Hunter Place
Youngsville, NC 27596 - USA
T 919-554-2244; 800-356-7311 - F 919-554-2266; 800-899-8181
<http://www.sirchie.com>

1.4. Emergency telephone number

Emergency number : 1.800.424.9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 1 H224
Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation:dust,mist) H332
STOT SE 1 H370
STOT SE 3 H336

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H224 - Extremely flammable liquid and vapor
H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H336 - May cause drowsiness or dizziness
H370 - Causes damage to organs

Precautionary statements (GHS-US) :

P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe vapors, fume
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash all exposed skin 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 eye protection, protective gloves
P301+P312 - If swallowed: Call a poison center/doctor/... if you feel unwell
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
P307+P311 - If exposed: Call a poison center/doctor

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P312 - Call a poison center/doctor/... if you feel unwell
P321 - Specific treatment (see information on this label)
P330 - Rinse mouth
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use CO₂, dry chemical, foam, water spray to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to local/regional/national/international regulations

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

| Name | Product identifier | % | Classification (GHS-US) |
|---------------------|--------------------|-----------|--|
| diethyl ether | (CAS No) 60-29-7 | 45 - 52.5 | Flam. Liq. 1, H224 Acute Tox. 4 (Oral), H302 STOT SE 3, H336 |
| methanol | (CAS No) 67-56-1 | 25 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370 |
| nitrocellulose, dry | (CAS No) 9004-70-0 | 0.75 | Expl. 1.1, H201 |

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : No reactivity hazard other than the effects described in sub-sections below.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| BPD5 Blood Print Lifter Solution | |
|----------------------------------|----------------|
| ACGIH | Not applicable |
| OSHA | Not applicable |
| diethyl ether (60-29-7) | |
| OSHA | Not applicable |
| methanol (67-56-1) | |
| OSHA | Not applicable |
| nitrocellulose, dry (9004-70-0) | |
| ACGIH | Not applicable |
| OSHA | Not applicable |

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gas mask. Gloves. Safety glasses.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Liquid |
| Appearance | : Clear, colorless liquid. |
| Color | : Colorless |
| Odor | : Alcohol odour |
| Odor threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : Soluble in water. Water: Solubility in water of component(s) of the mixture : • : 7 g/100ml • : >= 100 g/100ml |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No reactivity hazard other than the effects described in sub-sections below.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation:dust,mist: Harmful if inhaled.

BPD5 Blood Print Lifter Solution

| | |
|---------------|---------------------------|
| ATE US (oral) | 341.053 mg/kg body weight |
|---------------|---------------------------|

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| BPD5 Blood Print Lifter Solution | |
|---|----------------------------|
| ATE US (dermal) | 1200.000 mg/kg body weight |
| ATE US (dust, mist) | 2.000 mg/l/4h |

| diethyl ether (60-29-7) | |
|--------------------------------|---|
| LD50 oral rat | 1215 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 1600 mg/kg bodyweight; Rat) |
| LD50 dermal rabbit | > 14200 mg/kg (Rabbit) |
| LC50 inhalation rat (mg/l) | 99 mg/l/4h (Rat) |
| LC50 inhalation rat (ppm) | 32000 ppm/4h (Rat) |
| ATE US (oral) | 1215.000 mg/kg body weight |
| ATE US (gases) | 32000.000 ppmV/4h |
| ATE US (vapors) | 99.000 mg/l/4h |
| ATE US (dust, mist) | 99.000 mg/l/4h |

| methanol (67-56-1) | |
|----------------------------|--|
| LD50 oral rat | > 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence) |
| LD50 dermal rabbit | 15800 mg/kg (Rabbit; Literature study) |
| LC50 inhalation rat (mg/l) | 85 mg/l/4h (Rat; Literature study) |
| LC50 inhalation rat (ppm) | 64000 ppm/4h (Rat; Literature study) |
| ATE US (oral) | 100.000 mg/kg body weight |
| ATE US (dermal) | 300.000 mg/kg body weight |
| ATE US (gases) | 700.000 ppmV/4h |
| ATE US (vapors) | 3.000 mg/l/4h |
| ATE US (dust, mist) | 0.500 mg/l/4h |

| nitrocellulose, dry (9004-70-0) | |
|--|--------------------|
| LD50 oral rat | > 5000 mg/kg (Rat) |

| | |
|---|---|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| | Based on available data, the classification criteria are not met |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| | Based on available data, the classification criteria are not met |
| Specific target organ toxicity (single exposure) | : Causes damage to organs. May cause drowsiness or dizziness. |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |

SECTION 12: Ecological information

12.1. Toxicity

| diethyl ether (60-29-7) | |
|--------------------------------|--|
| LC50 fish 1 | > 10000 ppm (96 h; Lepomis macrochirus) |
| EC50 Daphnia 1 | 165 mg/l (24 h; Daphnia magna) |
| LC50 fish 2 | 2560 mg/l (96 h; Pimephales promelas) |
| EC50 Daphnia 2 | 1380 mg/l (48 h; Daphnia magna) |
| TLM fish 1 | > 1000 mg/l (96 h; Pisces) |
| TLM other aquatic organisms 1 | > 1000 mg/l (96 h) |
| methanol (67-56-1) | |
| LC50 fish 1 | 15400 mg/l (96 h; Lepomis macrochirus; Lethal) |

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| methanol (67-56-1) | |
|---|--|
| EC50 Daphnia 1 | > 10000 mg/l (48 h; Daphnia magna; Lethal) |
| LC50 fish 2 | 10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 2 | 24500 mg/l (48 h; Daphnia magna; Locomotor effect) |
| Threshold limit other aquatic organisms 1 | 6600 mg/l (16 h; Pseudomonas putida) |
| Threshold limit algae 1 | 530 mg/l (192 h; Microcystis aeruginosa) |
| Threshold limit algae 2 | 8000 mg/l (168 h; Scenedesmus quadricauda) |

12.2. Persistence and degradability

| BPD5 Blood Print Lifter Solution | |
|---|------------------|
| Persistence and degradability | Not established. |

| diethyl ether (60-29-7) | |
|---------------------------------|---|
| Persistence and degradability | Not readily biodegradable in water. No (test) data on mobility of the substance available. Reacts with air. |
| Biochemical oxygen demand (BOD) | 0.03 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 0.026 g O ₂ /g substance (KMnO ₄) |
| ThOD | 2.60 g O ₂ /g substance |
| BOD (% of ThOD) | 0.012 % ThOD |

| methanol (67-56-1) | |
|---------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. |
| Biochemical oxygen demand (BOD) | 0.6 - 1.12 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.42 g O ₂ /g substance |
| ThOD | 1.5 g O ₂ /g substance |
| BOD (% of ThOD) | 0.8 % ThOD |

| nitrocellulose, dry (9004-70-0) | |
|--|---|
| Persistence and degradability | Biodegradability in water: no data available. |

12.3. Bioaccumulative potential

| BPD5 Blood Print Lifter Solution | |
|---|------------------|
| Bioaccumulative potential | Not established. |

| diethyl ether (60-29-7) | |
|--------------------------------|---|
| BCF fish 1 | 0.9 - 9.1 (Cyprinus carpio; Test duration: 6 weeks) |
| Log Pow | 0.82 - 0.89 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| methanol (67-56-1) | |
|---------------------------|--|
| BCF fish 1 | < 10 (72 h; Leuciscus idus) |
| BCF fish 2 | 1 (72 h; Cyprinus carpio; Blood) |
| Log Pow | -0.77 (Experimental value; Other) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| nitrocellulose, dry (9004-70-0) | |
|--|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |

12.4. Mobility in soil

| diethyl ether (60-29-7) | |
|--------------------------------|-------------------|
| Surface tension | 0.017 N/m (20 °C) |

| methanol (67-56-1) | |
|---------------------------|-------------------|
| Surface tension | 0.023 N/m (20 °C) |

12.5. Other adverse effects

| | |
|------------------------------|--|
| Effect on ozone layer | : |
| Effect on the global warming | : No known ecological damage caused by this product. |
| Other information | : Avoid release to the environment. |

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

- Transport document description : UN2059 Nitrocellulose solution, flammable FLAMMABLE LIQUID, 3, II
UN-No.(DOT) : UN2059
Proper Shipping Name (DOT) : Nitrocellulose solution, flammable
FLAMMABLE LIQUID
Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquid



- Packing group (DOT) : II - Medium Danger

Additional information

- Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

- UN-No.(IATA) : UN2059
Proper Shipping Name (IATA) : Nitrocellulose solution, flammable
Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

BPD5 Blood Print Lifter Solution

Listed on United States SARA Section 313
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

F+; R12
E; R3
T; R23/24/25
T; R39/23/24/25
Xn; R22
R19

Full text of R-phrases: see section 16

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.2.2. National regulations

15.3. US State regulations

| BPD5 Blood Print Lifter Solution() | |
|---|-----|
| U.S. - California - Proposition 65 - Carcinogens List | No |
| U.S. - California - Proposition 65 - Developmental Toxicity | Yes |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |

SECTION 16: Other information

| | |
|-----------------------|--|
| Indication of changes | : Revision - See : * |
| Revision date | : 01/03/2015 |
| Data sources | : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Training advice | : Normal use of this product shall imply use in accordance with the instructions on the packaging. Keep in tightly closed container. Keep cool and dry. Avoid all ignition sources - heat, open flame, sparks. Avoid incompatible materials. Avoid dust creation and accumulation. Avoid inhalation and ingestion. Avoid contact with eyes. Wash thoroughly after handling. Ensure operators understand the flammability hazard. |
| Other information | : This Safety Data Sheet has been established in accordance with the applicable European Union legislation. |

Full text of H-phrases:

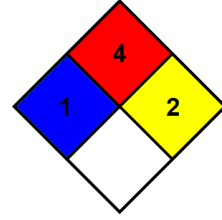
| | |
|-------------------------------------|---|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal) Category 3 |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhalation) Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral) Category 3 |
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal) Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Expl. 1.1 | Explosive Category 1.1 |
| Flam. Liq. 1 | Flammable liquids Category 1 |
| Flam. Liq. 2 | Flammable liquids Category 2 |
| STOT SE 1 | Specific target organ toxicity (single exposure) Category 1 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H201 | Explosive; mass explosion hazard |
| H224 | Extremely flammable liquid and vapor |
| H225 | Highly flammable liquid and vapor |
| H301 | Toxic if swallowed |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H312 | Harmful in contact with skin |
| H331 | Toxic if inhaled |
| H332 | Harmful if inhaled |
| H336 | May cause drowsiness or dizziness |
| H370 | Causes damage to organs |

BPD5 Blood Print Lifter Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|---------------------|--|
| NFPA health hazard | : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given. |
| NFPA fire hazard | : 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily. |
| NFPA reactivity | : 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water. |
| HMIS III Rating | |
| Health | : 2 Moderate Hazard - Temporary or minor injury may occur |
| Flammability | : 4 Severe Hazard |
| Physical | : 2 Moderate Hazard |
| Personal Protection | : G |



SDS US (GHS HazCom 2012)

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.