

Safety Data Sheet acc. to OSHA HCS

Printing date 12/06/2017

Reviewed on 12/06/2017

1 Identification

- **Product identifier**
 - **Trade name:** EP1350 B
 - **Recommended use:** Epoxy Hardener
 - **Restrictions on use:** For industrial use only
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022
1-877-259-1669
www.resinlab.com
 - **Information Department:** Product Safety Department: msds@resinlab.com
 - **Emergency Telephone Number:**
North America - Chemtrec: 1-800-424-9300 (24 hours)
International - Chemtrec: 01-703-527-3887 (24 hours)

2 Hazard(s) identification

- **Classification of the substance or mixture**

Acute Tox. 4 H332 Harmful if inhaled.
 Skin Irrit. 2 H315 Causes skin irritation.
 Eye Dam. 1 H318 Causes serious eye damage.
 Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride
1,2,3,6-tetrahydro-3,6-methanophthalic anhydride
- **Hazard statements**
H332 Harmful if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
- **Precautionary statements**
Do not breathe dusts or mists.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves / eye protection / face protection.
In case of inadequate ventilation wear respiratory protection.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor.
If skin irritation or rash occurs: Get medical advice/attention.
If experiencing respiratory symptoms: Call a poison center/doctor.
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
 - **NFPA System**
 - **NFPA ratings (scale 0 - 4)**



NFPA special hazards (water reactivity and oxidizing property): None

- **HMS System**
 - **HMS-ratings (scale 0 - 4)**



- **Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.

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· vPvB: Not applicable.

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3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Dangerous components:

CAS: 25134-21-8 EINECS: 246-644-8 Index number: 607-106-00-1 RTECS: RB 9100000	1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride	Acute Tox. 3, H331 Resp. Sens. 1, H334 Skin Corr. 1C, H314; Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Sens. 1, H317	70-80%
CAS: 826-62-0 EINECS: 212-557-9 Index number: 607-105-00-6	1,2,3,6-tetrahydro-3,6-methanophthalic anhydride	Resp. Sens. 1, H334 Eye Dam. 1, H318 Skin Sens. 1, H317	10%
CAS: 37788-55-9	1-(2-hydroxypropyl) imidazole	Acute Tox. 3, H301	1-2.5%

· Additional information:

If the chemical name/CAS number is proprietary and or weight percentage is listed as a range, the specific chemical identity and or percentage of composition has been withheld as a trade secret.

4 First-aid measures

· Description of first aid measures

· General information:

Keep warm, position comfortably and cover well.
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Remove victim from exposure to fresh air. Keep person at rest. Provide oxygen if person is not breathing.
If breathing is difficult, provide oxygen and obtain medical attention.
In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.
Remove all contaminated clothing and wash before reuse.
If skin rash or irritation occurs, seek medical advice.

· After eye contact:

Rinse opened eye for 10-15 minutes under running water. Then consult a doctor.
Remove contact lenses if present and easy to do so; continue rinsing.
Do not put any ointments, oils or medication in eyes without specific instructions.
Get medical attention.

· After swallowing:

If victim is unconscious; never give anything by mouth.
If victim is conscious, rinse out mouth and give two glasses of water.
Seek immediate medical advice.

· After Exposure Move to fresh air at once.

· Information for doctor:

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
Check section 11 Toxicological Information for further relevant information.

5 Fire-fighting measures

· Extinguishing media

· Suitable extinguishing agents:

Use fire fighting measures that suit the environment.
Alcohol resistant foam
Carbon dioxide
dry chemical

· Special hazards arising from the substance or mixture

Will not burn unless preheated.
In case of fire, the following can be released:
Organic acids
Aldehydes
During heating or in case of fire poisonous gases are produced.
Carbon dioxide (CO₂) and Carbon monoxide (CO)

· Advice for firefighters

· Protective equipment:

Mouth respiratory protective device.
If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA fire brigades standard (29 CFR 1910.156).
As with any fire, wear positive-pressure self-contained breathing apparatus and full protective gear that are NIOSH approved.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective clothing.
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
Do not breathe gas, vapors, dusts or mists if their inhalable particles occur during use.

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- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
For large spills: provide diking or containment to minimize spreading. If possible pump and store material in appropriate container.
For small spills: Ventilate and wash area. Collect spills and absorbant material in appropriate container.
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent if necessary.
Dispose contaminated material as waste according to item 13.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
Avoid breathing vapor or spray mists.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Keep away from incompatible material(s).
Avoid any release into the environment.
Do not breathe dust/fumes/mist/vapor/spray.
Avoid contact with eyes, skin and clothing.
Keep away from heat, sparks, flames and ignition sources.
Observe all the personal protection requirements in Section 8.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Provide ventilation for receptacles.
Keep stored in accordance with local, regional, national, and international regulations.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

25134-21-8 1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride

TEEL 1 0.44 mg/m³ TEEL-2 4.8 mg/m³/TEEL-3 29 mg/m³

· **Additional Occupational Exposure Limit Values for possible hazards during processing:** None.

- **Exposure controls**

If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

If exposure limits have not been established, maintain airborne levels to an acceptable level.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

- Be sure to clean skin thoroughly after work and before breaks.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

- **Personal Protective Equipment (PPE)**

- **Breathing equipment:**

Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**



Chemical resistant gloves

- **Eye protection:**



Safety Glasses with side shields

- **Body protection:** Appropriate chemical resistant clothing.

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- **Limitation and supervision of exposure into the environment**
 The Engineering measures or controls, and PPE recommendations are only guidelines and may not apply to every situation. For additional information, please consult the corresponding requirements under OSHA 29 CFR 1910.94-95, and 29 CFR 1910.132-138.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Liquid
- **Color:** Light yellow

- **Odor:** Light
- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** 120 °C (248 °F)

- **Flash point:** 150 °C (302 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

- **Lower:** Not determined.
- **Upper:** Not determined.

- **Vapor pressure:** 1.5 mm Hg hPa (30 °C)

- **Vapor Density:** 6.1 (air = 1)
not determined

- **Density at 20 °C (68 °F):** 1.16 g/cm³ (9.68 lbs/gal)

- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

- **Solubility in / Miscibility with**

- **Water:** Hydrolized.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

- **Dynamic at 20 °C (68 °F):** 250 mPas
- **Kinematic:** Not available.
- **VOC content:** 0.00 %
0.0 g/l / 0.00 lb/gal

10 Stability and reactivity

- **Reactivity** Not a regulated physical hazard under GHS.
- **Hazardous Reactivity and Chemical Stability** May slowly react with water or moisture.
- **Thermal decomposition / conditions to be avoided:**
 To avoid thermal decomposition do not overheat.
 No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Polymerizes at 200 C or higher.
- **Conditions to avoid** Keep away from heat, sparks, flame and any other ignition sources.
- **Incompatible materials:**
 Will react with water or steam to produce free acid and heat.
 Water
 Bases (Alkalis)
 Oxidizing agents
 Strong acids
- **Hazardous decomposition products:** Possible in traces.
- **Additional information:**
 As long as the prescribed application concentrations are maintained there is no danger that stable emulsions will form.

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

25134-21-8 1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride

Oral	LD50	1,300 mg/kg (rat) (OECD TG 401)
Dermal	LD50	4,920 mg/kg (rat)
Inhalative	LC50/4 h	<0.75 mg/l (rat) dusts and mists

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37788-55-9 1-(2-hydroxypropyl) imidazole

Oral LD50 70.5 mg/kg (rat)

- **Primary irritant effect:** nasal discharge
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
- **Sensitization:**
 - Sensitization possible through inhalation.
 - Sensitization possible through skin contact.
- **Experience with humans:** Not applicable.
- **Additional toxicological information:**
 - The product shows the following dangers according to internally approved calculation methods for preparations:
 - Toxic
 - Harmful
 - Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:****25134-21-8 1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride**

EC50 mg/kg (rabbit) (Draize test)

Irritation: 3.9/8 (Max. 8; neat substance); the substance was classified as moderately (Category 2) irritating to rabbit skin.
Reference: EPA HPVIS (2011).

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No data available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:** The product is non-rapid degradable, and low or not highly bioaccumulative.
 - **General notes:**
 - Water hazard class 1 (Self-assessment): slightly hazardous for water
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
 - **PBT:** None of the ingredients is listed.
 - **vPvB:** None of the ingredients is listed.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:**
 - Must be specially treated adhering to official regulations.
 - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:** Dispose of according to your local waste regulations.

14 Transport information

- **UN-Number**
 - DOT, ADN, IMDG, IATA not regulated
- **UN proper shipping name**
 - DOT, ADN, IMDG, IATA Not regulated for transport; not applicable.
not regulated
- **Transport hazard class(es)**
 - DOT, ADN, IMDG, IATA Class not regulated
- **Packing group**
 - DOT, IMDG, IATA not regulated
- **Environmental hazards:** Not applicable.
- **Special precautions for user**
 - Stowage Category Not applicable.
B
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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· **UN "Model Regulation":** not regulated

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **SARA Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **SARA Section 311/312 (Hazardous Chemical Inventory Reporting)**

25134-21-8	1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride	A	70-80%
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· **Hazard Abbreviations for SARA 311/312**

A - Acute Health Hazard
 C - Chronic Health Hazard
 F - Fire Hazard
 R - Reactive Hazard
 S - Sudden Release of Pressure Hazard

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **International Regulation Lists**

· **Chinese Chemical Inventory of Existing Chemical Substances:**

All ingredients are listed.

· **GHS label elements** GHS label elements

· **National regulations:**

· **Japanese Existing and New Chemical Substance List:**

All ingredients are listed.

· **Korean Existing Chemical Inventory:**

25134-21-8	1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride
826-62-0	1,2,3,6-tetrahydro-3,6-methanophthalic anhydride

· **European Pre-registered substances:**

All ingredients are listed.

· **EINECS List:**

25134-21-8	1,2,3,6-tetrahydromethyl-3,6-methanophthalicanhydride
826-62-0	1,2,3,6-tetrahydro-3,6-methanophthalic anhydride

· **ELINCS List:**

None of the ingredients is listed.

· **REACH - Substances of Very High Concern (SVHC) List:**

None of the ingredients is listed.

· **Restriction of Hazardous Substances Directive (RoHS) list:**

None of the ingredients is listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department Issuing (M)SDS:** Product Development Department

· **Contact:** msds@resinlab.com

· **Date of preparation / last revision** 12/06/2017 / 7

· *** Data compared to the previous version altered.**