EP1350 A

Safety Data Sheet

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

Issue date: 03/13/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : EP1350 A

1.2. Recommended use and restrictions on use

Recommended use : Epoxy resin

Restrictions on use : Product for industrial use only

1.3. Supplier

ResinLab, LLC
N109 W13300 Ellsworth Drive
Germantown, WI 53022 - United States
T 1-877-259-1669
msds@resinlab.com - www.resinlab.com

1.4. Emergency telephone number

Emergency number : CHEMTREC:1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Warning

Hazard statements (GHS US) : H317 - May cause an allergic skin reaction

Precautionary statements (GHS US) : P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate	(CAS-No.) 2386-87-0	10 – 30
Epoxy Resin	(CAS-No.) 25068-38-6	1 – 5
carbon black	(CAS-No.) 1333-86-4	0.1 – 0.5

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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.

First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released,Carbon oxides (CO, CO2)

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Contains a component(s) that is encapsulated within the product and not expected to be released during normal processing conditions or a foreseeable emergency. Do not breathe dust created by sanding, grinding or machining.

Precautions for safe handling : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Epoxy Resin (25068-38-6)
Not applicable

carbon black (1333-86-4)		
ACGIH	Local name	Carbon black
ACGIH	ACGIH OEL TWA	3 mg/m³ (Inhalable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2022
OSHA	OSHA PEL (TWA) [1]	3.5 mg/m³
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)
Not applicable

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station, ventilate curing ovens to prevent emissions in the workplace.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses with side shields

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Black

Odor : characteristic

Odor threshold : No data available

pH : No data available

Melting point : Not applicable

Freezing point	:	No data available
Boiling point	:	> 200 °C
Flash point	:	> 200 °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Density	:	2.49 g/cm³
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
VOC content		No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases. Avoid unintended contact with amines.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Epoxy Resin (25068-38-6)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

carbon black (1333-86-4)	
LD50 oral rat	> 10000 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 28 day(s))
LD50 dermal rabbit	> 8000 mg/kg Source: ECHA

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
LD50 oral rat	4490 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (OECD 402: Acute Dermal Toxicity, Rat, Male / female, Experimental value, Dermal)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Dermal)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
LC50 Inhalation - Rat	> 20 mg/l (4 h, Rat, Inhalation)
ATE US (oral)	4490 mg/kg body weight

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Epoxy Resin (25068-38-6)	
NOAEL (chronic,oral,animal/male,2 years)	15 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)
NOAEL (chronic,oral,animal/female,2 years)	100 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)

carbon black (1333-86-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

carbon black (1333-86-4)	
LOAEC (inhalation,rat,dust/mist/fume,90 days)	0.0071 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (oral,rat,90 days)	> 1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation,rat,dust/mist/fume,90 days)	0.0011 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : Not classified

Symptoms/effects after skin contact : May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Epoxy Resin (25068-38-6)	
LC50 - Fish [1]	1.3 mg/l (96 h, Pisces, Literature study)
EC50 - Crustacea [1]	≈ 2 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

carbon black (1333-86-4)	
LC50 - Fish [1]	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	> 5600 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 10000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
LC50 - Fish [1]	24 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
EC50 - Crustacea [1]	40 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

Epoxy Resin (25068-38-6)	
Persistence and degradability	Not readily biodegradable in water.

carbon black (1333-86-4)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
Persistence and degradability	Biodegradability in soil: no data available. Readily biodegradable in water.
ThOD	2.16 g O_2/g substance

12.3. Bioaccumulative potential

Epoxy Resin (25068-38-6)	
Partition coefficient n-octanol/water (Log Pow)	3 (Estimated value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

carbon black (1333-86-4)	
Bioaccumulative potential	Not bioaccumulative.

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
Partition coefficient n-octanol/water (Log Pow)	1.34 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

Epoxy Resin (25068-38-6)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

carbon black (1333-86-4)	
Surface tension	Not applicable (solid)
Ecology - soil	No (test)data on mobility of the substance available. Not toxic to plants. Not toxic to animals.

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.4195 (log Koc, QSAR)
Ecology - soil	Low potential for adsorption in soil. Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

Epoxy Resin (25068-38-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. International regulations

CANADA

Epoxy Resin (25068-38-6)
Listed on the Canadian DSL (Domestic Substances List)

carbon black (1333-86-4)
Listed on the Canadian DSL (Domestic Substances List)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Contains no REACH candidate substance

Epoxy Resin (25068-38-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

carbon black (1333-86-4)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

Epoxy Resin (25068-38-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

carbon black (1333-86-4)
Listed on IARC (International Agency for Research on Cancer)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

(3,4-Epoxycyclohexyl)methyl 3,4-epoxycyclohexylcarboxylate (2386-87-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

15.3. US State regulations

⚠ **WARNING:** This product can expose you to Epichlorohydrin, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
carbon black(1333-86-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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

Full text of H-phrases:

H317	May cause an allergic skin reaction
H402	Harmful to aquatic life

SDS US - ResinLab

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.