

Section 1: Identification
1.1. Product identifier

Product form : Substance
Product Identifier(s) : Cleartack® W 110
Norsolene® W 110
Norsolene EU W110
CAS No : 9011-11-4

1.2. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Additive for paints, coatings, inks, adhesives
Rubbers

1.3. Details of the supplier of the safety data sheet

Total Petrochemicals & Refining USA, Inc.
Cray Valley Division
PO Box 674411
Houston, TX 77267-4411

For non-emergency product information:
Phone: 713-483-5000 or 1-877-871-2729
Email: product.stewardship@total.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (Toll Free USA & Canada) / 703-527-3887 (Multiple languages)
Total Petrochemicals & Refining USA, Inc.: 1-800-322-3462 (Language: English only)

Section 2: Hazards identification
2.1. Classification of the substance or mixture
GHS-US classification

Combustible Dust
Carcinogenicity Category 2

2.2. Label elements
GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

Suspected of causing cancer
If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air

Precautionary statements (GHS-US) :

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
If exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents and container in accordance with all local, regional, national and international regulations

2.3. Hazards not otherwise classified

Other hazards not contributing to the classification

: Product can accumulate electrostatic charges that may cause fire by electrical discharges.

2.4. Unknown acute toxicity (GHS US)

Not applicable

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2.5. Additional information

Based on conditions common to industrial workplace use of this product

: Contact with skin or eyes with hot material may cause serious thermal burns to skin or eyes. Vapors formed when material is processed at high temperatures may be irritating to the eyes and upper respiratory tract.

Based on professional judgment, inconclusive testing, or sensitive individuals

: Dust from this product may cause respiratory irritation. Repeated or prolonged contact may cause slight irritation to the skin.

Section 3: Composition/Information on ingredients

3.1. Substance

Substance type

: Polymer

Chemical name

: Ethenylbenzene, copolymer with (1-methylethenyl)benzene

CAS No

: 9011-11-4

Generic name

: Hydrocarbon Resin

Impurities and/or Stabilizing Additives which Contribute to the Classification:

| Name | CAS No | % |
|---|---------|-----|
| 2-phenylpropene; alpha-methylstyrene (Impurity) | 98-83-9 | < 1 |

3.2. Mixture

Not applicable

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

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

First-aid measures after skin contact

: Wash with plenty of soap and water. If irritation persists, consult a doctor. Heated Material: For serious burns from heated material, get medical attention. In case of skin contact, immediately immerse in or flush with clean, cold water.

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking, tears or redness persist.

First-aid measures after ingestion

: Rinse mouth out with water. If necessary seek medical advice.

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

Chronic symptoms

: Suspected of causing cancer.

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

Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Water spray or fog. Carbon dioxide. Foam. Dry chemical. Dry powder. Sand.

Unsuitable extinguishing media

: Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the chemical

Fire hazard

: Vapors generated from overheating/melting/decomposition may be flammable and may cause fire/explosion if source of ignition is present.

Explosion hazard

: Potential dust explosion hazard. When dust becomes airborne and is exposed to an ignition source, sufficient combustible/flammable dust may exist to burn in the open or explode if confined.

Hazardous decomposition products in case of fire

: Carbon oxides (CO, CO₂). Toxic fumes. aromatic hydrocarbons.

5.3. Advice for firefighters

Firefighting instructions

: Fight fire from safe distance and protected location. Use water spray or fog for cooling exposed containers. Avoid raising powdered materials into airborne dust, creating an explosion hazard. Apply aqueous extinguishing media carefully to prevent frothing/steam explosion. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting

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

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Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Emergency procedures for non-emergency personnel : Remove ignition sources. Ensure adequate ventilation. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures for emergency responders : No additional requirement.

6.2. Methods and material for containment and cleaning up

- For containment : Spilled material may present a slipping hazard. Sweep up or vacuum up the product.
- Methods for cleaning up : Dispose of materials or solid residues at an authorized site.

6.3. Reference to other sections

See section 8. Exposure controls/personal protection.

Section 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with heated product to prevent burns.

When heated above 170 °C for at least 20 minutes, alpha-methyl styrene is generated by depolymerization. Wear Approved organic vapor respirator.

Combustible dust precautions: Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Use only non-sparking tools. Avoid raising powdered material due to explosion hazard. Prevent the build-up of electrostatic charge. The plastic packaging film used to secure bags of material on pallets can also develop static electricity -- remove packaging film in an area free from ignitable vapors/dust. Refer to the latest edition of the National Fire Protection Association (NFPA) 654 publication, "Standard for the Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries", for complete discussion on dust explosion prevention and control measures.

- Hygiene measures : 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

- Technical measures : Electrical equipment should conform to the National Electric Code.
- Storage conditions : Keep container tightly closed. Store in a dry, cool area. Protect from sunlight. Store in a well-ventilated place. Flaked forms may degrade by gradual oxidation.
- Incompatible materials : Strong oxidizing agents.
- Storage temperature : < 40 °C
- Packaging materials : Plastic.

Section 8: Exposure controls/personal protection

8.1. Occupational Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV, or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

| Clear tack® W 110 (9011-11-4) | | |
|--|----------------------------|--|
| USA ACGIH | ACGIH TWA (mg/m³) | 10 mg/m³ inhalable dust 3 mg/m³ respirable dust |
| USA ACGIH | Remark (ACGIH) | Particulates, not otherwise classified |
| USA OSHA | OSHA PEL (TWA) (mg/m³) | 15 mg/m³ (total dust) |
| USA OSHA | Remark (OSHA) | Particulates, not otherwise classified |
| 2-phenylpropene; alpha-methylstyrene (98-83-9) | | |
| USA ACGIH | ACGIH TWA (ppm) | 10 ppm |
| USA OSHA | OSHA PEL (Ceiling) (mg/m³) | 480 mg/m³ |
| USA OSHA | OSHA PEL (Ceiling) (ppm) | 100 ppm |

8.2. Exposure controls

- Appropriate engineering controls : Provide readily accessible eye wash stations and safety showers. Ensure good ventilation of the work station.
- Hand protection : Protective gloves.
- Eye protection : Safety glasses.
- Skin and body protection : Wear fire/flammable resistant/retardant clothing.

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Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Pastilles.
Color : Colorless.
Odor : Mild. Hydrocarbon.
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 : > 250 °C
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
Specific gravity / density : 1.05 - 1.07 g/m³ @ 20 °C
Solubility : Soluble in aromatic solvents. Soluble in common aliphatic solvents.
Water: Insoluble
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosion limits : No data available

9.2. Other information

Explosive properties : Explosion Index, Kst (bar. m/s) : 200 - 315*
Max. Explosive Pressure (Pmax), bar : 8.8*.
Minimum ignition energy : 1 - 3 mJ *
Softening point : 110 °C
Additional information : Data denoted with an asterisk is from a representative product or class of products

Section 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

Dust may form explosive mixture in air.

10.4. Conditions to avoid

Avoid the build-up of electrostatic charge. High temperature. Avoid dust formation. Direct sunlight. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

When heated above 170 °C for at least 20 minutes, alpha-methyl styrene is generated by depolymerization.

Section 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation. Ingestion. Skin and eye contact.

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Acute toxicity : Not classified
Based on available data, the classification criteria are not met

| Clearack® W 110 (9011-11-4) | |
|--|--|
| LD50 oral rat | > 2000 mg/kg Directive (92/69/EEC) - Method B1 / (OECD 423 method) |
| 2-phenylpropene; alpha-methylstyrene (98-83-9) | |
| LD50 oral rat | 4900 mg/kg |
| LD50 dermal rabbit | > 16 ml/kg |

Skin corrosion/irritation : Not classified
Based on available data, the classification criteria are not met
Not irritating to skin
(rabbit)

Serious eye damage/irritation : Not classified
Based on available data, the classification criteria are not met

Respiratory or skin sensitization : Not classified
Based on available data, the classification criteria are not met
Does not cause cutaneous sensitization for guinea-pigs

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Suspected of causing cancer.

| 2-phenylpropene; alpha-methylstyrene (98-83-9) | |
|--|--|
| IARC group | 2B - Possibly carcinogenic to humans |
| National Toxicology Program (NTP) Status | Not listed |
| Reproductive toxicity | : Not classified Based on available data, the classification criteria are not met |
| Specific target organ toxicity (single exposure) | : Not classified Based on available data, the classification criteria are not met |
| Specific target organ toxicity (repeated exposure) | : Not classified Based on available data, the classification criteria are not met |
| Aspiration hazard | : Not classified Not applicable |

Section 12: Ecological information

12.1. Toxicity

| 2-phenylpropene; alpha-methylstyrene (98-83-9) | |
|--|---|
| LC50 fish 1 | 28 mg/l (Exposure time: 48 h - Species: Leuciscus idus) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| 2-phenylpropene; alpha-methylstyrene (98-83-9) | |
|--|-------|
| Log Pow | 3.265 |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Transfer to a safe disposal area in accordance with federal, state, and local regulations.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

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Section 14: Transport information

US Transport (DOT) for Bulk Shipments (Non-Bulk Shipments May Differ)

Not regulated by US DOT

Transport by sea (IMDG)

Not regulated by IMDG

Air transport (IATA)

Not regulated by IATA

Section 15: Regulatory information

15.1. US Federal regulations

EPA TSCA Status

All components of this product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

SARA Section 313 Supplier Notification

This product contains the following toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

| CAS number | Chemical name | Concentration |
|------------|--------------------------------------|---------------|
| 98-83-9 | 2-phenylpropene; alpha-methylstyrene | < 1% |

This information must be included in all Safety Data Sheets that are copied and distributed for this product. For additional information, see 40 CFR §372.45 Notification About Toxic Chemicals.

SARA Section 311/312 Hazard Classes

Fire hazard
Chronic health hazard

Export Control Classification Number (ECCN):

EAR99 (No License Required)

15.2. International regulations

CANADA

No additional information available

National inventories

Ethenylbenzene, copolymer with (1-methylethenyl)benzene (9011-11-4)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the China Inventory of Existing Chemical Substances (IECSC)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity, not limited to any that may be listed below

| 2-phenylpropene; alpha-methylstyrene (98-83-9) | |
|---|-----|
| U.S. - California - Proposition 65 - Carcinogens List | Yes |
| U.S. - California - Proposition 65 - Developmental Toxicity | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Female | No |
| U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No |

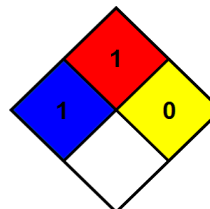
Section 16: Other information

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NFPA (National Fire Protection Association)

NFPA health hazard : 1
NFPA fire hazard : 1
NFPA reactivity : 0



HMIS III Rating

Health : 1*
Flammability : 1
Physical Hazard : 0
Personal protection : See section 8 of SDS

Version : 2.0

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SDS REFERENCE NUMBER: FP11706

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