

Section 1: Identification

1.1. Product identifier

Product form : Substance
Substance name : Norsolene® S-135
Chemical name : Distillates (petroleum), steam-cracked polymers with light steam-cracked petroleum naphtha
CAS No : 68410-16-2
Generic name : Aromatic Hydrocarbon Resin

1.2. Recommended use of the chemical and restrictions on use

No additional information available

1.3. Details of the supplier of the safety data sheet

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

For non-emergency product information:
Phone: 713-483-5000 or 1-877-871-2709
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

Classification (GHS-US)

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) :

**May form combustible dust concentrations in air
Suspected of causing cancer**

Precautionary statements (GHS-US) :

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear eye protection, face protection, protective clothing, protective gloves
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 :

Dust or particulates may cause mild respiratory tract and eye irritation
Repeated or prolonged contact may cause slight irritation to the skin
Vapors formed when material is processed at high temperatures may be irritating to the eyes and upper respiratory tract.
Contact with skin or eyes with hot material may cause serious thermal burns to skin or eyes.

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2.4. Unknown acute toxicity (GHS-US)

Not applicable

Section 3: Composition/information on ingredients

3.1. Substance

Chemical name : Distillates (petroleum), steam-cracked polymers with light steam-cracked petroleum naphtha

CAS No : 68410-16-2

Impurities and stabilizing additives :

Name	CAS No	%
Naphthalene (Impurity)	91-20-3	< 1

3.2. Mixture

Not applicable

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove 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. Do not attempt to remove adhered material from skin.

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 : Do NOT induce vomiting unless directed to do so by medical personnel.

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

Symptoms/injuries : Chronic (long-term) health effects may result from repeated overexposure.

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

5.2. Special hazards arising from the chemical

Fire hazard : May form combustible dust concentrations in air. 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.

5.3. Advice for firefighters

Firefighting instructions : 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. Fight fire from safe distance and protected location.

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

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. Evacuate unnecessary personnel. 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.

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6.2. Methods and material for containment and cleaning up

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

6.3. Reference to other sections

See section 8. Exposure controls and 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 elevated temperature or molten product to prevent burns. Avoid raising powdered material due to explosion hazard. Prevent the build-up of electrostatic charge. Use only non-sparking tools. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. 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. This material may be shipped as a viscous, molten product at elevated temperatures (approximately 177 °C), but below its flashpoint, to facilitate transfer to storage containers or processing vessels.
- 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. 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. Protect from freezing. If frozen, thaw and mix thoroughly before use.
- Storage conditions : Keep container tightly closed. Store in a dry place. Flaked forms may degrade by gradual oxidation.
- Incompatible products : Oxidizing agents.
- Maximum storage period : 12 months
- Storage temperature : < 40 °C

Section 8: Exposure controls/personal protection

8.1. Occupational Exposure Limits

Norsolene® S-135 (68410-16-2)		
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (inhalable dust) 3 mg/m ³ (respirable dust)
USA ACGIH	Remark (ACGIH)	Particulates, not otherwise classified
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
USA OSHA	Remark (US OSHA)	Particulates, not otherwise classified
Naphthalene (91-20-3)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	15 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	50 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Hand protection : Protective gloves.
- Eye protection : Safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear appropriate respiratory protection, if occupational exposure limits are exceeded or irritation/sensitivity is experienced.

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Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pastilles. Flakes.
Color	: Pale yellow. Translucent. Amber.
Odor	: Hydrocarbon.
Odor threshold	: No data available
pH	: Not applicable
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	: > 480 °C (Closed cup)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: ~ 25 mm Hg
Relative vapor density at 20 °C	: No data available
Relative density	: 1.06 1.08
Solubility	: Water: Insoluble
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available

9.2. Other information

Softening point	: 133 °C
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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

May form combustible dust concentrations 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. To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological information

11.1. Information on toxicological effects

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

Naphthalene (91-20-3)	
LD50 oral rat	490 mg/kg
LD50 dermal rabbit	> 20 g/kg
LC50 inhalation rat	> 340 mg/m ³ (Exposure time: 1 h)
ATE (oral)	500

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Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
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
Germ cell mutagenicity	: Not classified Lack of data
Carcinogenicity	: Suspected of causing cancer.

Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
Reproductive toxicity	: Not classified Lack of data
Specific target organ toxicity (single exposure)	: Not classified Lack of data
Specific target organ toxicity (repeated exposure)	: Not classified Lack of data
Aspiration hazard	: Not classified Not applicable
Potential Adverse human health effects and symptoms	: Dust or particulates may cause mild respiratory tract and eye irritation. Product may cause mild skin irritation.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

Section 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Naphthalene (91-20-3)	
LC50 fish 1	5.74 - 6.44 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	0.4 mg/l (Exposure time: 72 h - Species: Skeletonema costatum)
LC50 fish 2	1.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	1.96 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Naphthalene (91-20-3)	
BCF fish 1	30 - 430
Log Pow	3.3 (at 20 °C)

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.

Section 14: Transport information

Not a DOT controlled material

Additional information

Transport by sea (IMDG)

Not an IMDG controlled material

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Air transport (IATA)

Not an IATA controlled material

Section 15: Regulatory information

15.1. US Federal regulations

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TSCA

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 313

This product contains chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.:

Naphthalene	CAS No.: 91-20-3	Conc: < 1%
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SARA Section 311/312 Hazard Classes Chronic health hazard
Fire hazard

Export Control Classification Number (ECCN): EAR99 (No License Required)

15.2. International regulations

CANADA

No additional information available

National inventories

Distillates (petroleum), steam-cracked polymers with light steam-cracked petroleum naphtha (68410-16-2)

Listed on the AICS (the Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Korean ECL (Existing Chemical List) inventory.

Listed on New Zealand - Inventory of Chemicals (NZIoC)

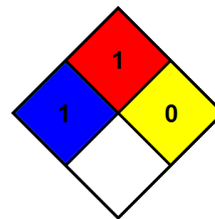
15.3. US State regulations

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.

Naphthalene (91-20-3)	
U.S. - California - Proposition 65 - Carcinogens List	Yes
No significance risk level (NSRL)	5.8 µg/day

Section 16: Other information

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 : 1.1

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Safety Data Sheet

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