

Cray Valley USA, LLC

Material Safety Data Sheet

Product: NORSOLENE S-145
MSDS ID: S-000204

Revised Date: 01-13-2009

01. GENERAL INFORMATION

Cray Valley USA, LLC
Oaklands Corporate Center
468 Thomas Jones Way
Exton, Pennsylvania 19341

Emergency phone number:
800/424-9300 (CHEMTREC)

Product information:
610/363-4100

TRADE NAMES

This MSDS covers the following Norsolene® products: S115, S125, S125(SC), S135, S135(SC), S145, S155, S155(Plus), S135 IN135

GENERIC NAME

Aromatic Hydrocarbon Resin

DOT PROPER SHIPPING NAME

N/AP

UN/NA NUMBER

N/AP

DOT HAZARD CLASS

Not regulated

02. SUMMARY OF HAZARDS

CAUTION

PHYSICAL HAZARDS: Potential dust explosion hazard

ACUTE HEALTH EFFECTS: Respiratory tract irritation hazard--particulate/
(SHORT-TERM) dust
Slight eye irritation hazard--particulate/dust
Slight skin irritation hazard
Not expected to be an ingestion hazard
Not expected to be a skin absorption hazard

CHRONIC HEALTH EFFECTS: No appropriate human or animal chronic health
(LONG-TERM) effects data are known to exist.

03. COMPONENTS

COMPONENT NAME	CAS NUMBER	% COMPOSITION (BY WT.)
Aromatic Hydrocarbon Resin	68410-16-2	AP 100

04. PHYSICAL AND CHEMICAL DATA

BOILING POINT	pH
N/AP	N/DA
FREEZING POINT	SOFTENING RANGE

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N/AP	115-155C (239F-311F)
SPECIFIC GRAVITY (H2O=1 AT 39.2F)	VOLATILE CHARACTERISTICS
1.06-1.08 at 25C/77F	Negligible at 20C/68F
VISCOSITY UNITS, TEMP.	SOLUBILITY IN WATER
N/AP	Insoluble
VAPOR PRESSURE	STABILITY
AP 25 mm Hg at 204C/400F	Stable
VAPOR SP GR (AIR=1 AT 60 - 90F)	HAZARDOUS POLYMERIZATION
N/DA	Will not occur

APPEARANCE AND ODOR

Translucent, pale yellow to amber pellets/flakes with low typical hydrocarbon odor

CONDITIONS AND MATERIALS TO AVOID

Avoid generating dust when handling this material and prevent electrostatic charge formation/build up during storage, transfer and handling/use. Avoid decomposition of material during thermal processing.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide, carbon dioxide may be released during thermal decomposition or in a fire involving this product.

05. OCCUPATIONAL EXPOSURE LIMITS

SUBSTANCE	SOURCE	TYPE	VALUE
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No specific occupational exposure standards have been established for this material. However, airborne concentrations should be kept within the following limits:

Particulates, not otherwise classified	OSHA	PEL-TWA	15 mg/m3 (Total dust) 5 mg/m3 (Respirable)
	ACGIH	TLV-TWA	10 mg/m3 (Inhalable) 3 mg/m3 (Respirable)

06. FIRE AND EXPLOSION

FLASH POINT	AUTOIGNITION TEMP.
GT 249C/480F	N/DA

FLAMMABLE LIMITS (% VOLUME IN AIR)

LOWER: N/DA UPPER: N/DA

FIRE AND EXPLOSION HAZARDS

If a sufficient quantity of finely divided dust is mixed with air and exposed to an ignition source, it may burn in the open or explode if confined. Use good housekeeping practices to avoid rendering dust airborne and prevent electrostatic charge formation during transfer, handling and use of this material. Ensure all equipment is adequately grounded. Vapors

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

EXTINGUISHING MEDIA

Dry chemical
CO2
Water spray
Foam
Water fog

SPECIAL FIREFIGHTING PROCEDURES

Do not enter fire area without proper protection. See section on decomposition products possible. Fight fire from safe distance/protected location. Apply aqueous extinguishing media carefully to prevent frothing/steam explosion. Use water spray/fog for cooling. Avoid contact with molten product to prevent serious burns. Avoid raising powdered materials into airborne dust, creating an explosion hazard. Notify authorities if liquid enters sewer/public waters.

07. HEALTH HAZARDS

ROUTES OF EXPOSURE

INHALATION -- PRIMARY ROUTE

As with other dust generating materials, excessive dust exposure may cause irritation of the respiratory tract. Symptoms may include cough, sneezing, mucous production and shortness of breath.

EYE CONTACT -- PRIMARY ROUTE

Particulates/dust entering the eye can cause mechanical irritation. Eyes may become red, feel scratchy and tearing may occur.

SKIN ABSORPTION

Although no appropriate human or animal health effects data are known to exist, this material is not expected to be a health hazard by skin absorption.

SKIN IRRITATION -- PRIMARY ROUTE

Prolonged skin contact may cause slight skin irritation. A slight, localized redness may develop and dryness or peeling of the skin may occur. Skin contact with molten product may cause thermal burns.

INGESTION

Although no appropriate human or animal health effects data is known to exist, this material is not expected to be an ingestion hazard.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

No additional medical information found.

08. PROTECTIVE EQUIPMENT / CONTROL MEASURES

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RESPIRATORY PROTECTION

If exposure exceeds the PEL/TLV for nuisance particulate, use NIOSH/MSHA approved respiratory protection equipment. Provide ventilation during thermal processing (refer to engineering controls recommended in this section).

EYE PROTECTION

Dust service goggles should be worn to prevent mechanical injury to eyes due to airborne particles which may be associated with this product. Protective goggles should be worn during thermal processing.

SKIN PROTECTION

Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. This equipment should be cleaned thoroughly after each use.

Use insulated gloves, impervious apron, long sleeves and other protective clothing when handling this material hot. Wash clothing frequently.

ENGINEERING CONTROLS

Provide local exhaust or general room ventilation to minimize exposure to dust. If mechanical ventilation is used, electrical systems should conform to National Electric Code (NFPA 70); electrical equipment must be suitable for the classification of the area where it is installed. Guidance on area classification can be found in NFPA 499.

Thermal processing equipment should be properly ventilated to control gases/vapors which may be evolved. Vapors from thermal processing may be flammable.

OTHER HYGIENIC PRACTICES

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

OTHER WORK PRACTICES

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

09. EMERGENCY AND FIRST AID

INHALATION

Remove victim to fresh air immediately. Obtain emergency medical attention if breathing difficulty persists beyond 15 minutes.

EYE CONTACT

In case of eye contact with this solid material, immediately rinse with clean water for 20-30 minutes. Retract eyelids often. Obtain emergency medical attention if pain, blinking, tears or redness persist.

SKIN CONTACT

Remove contaminated clothing as needed. Wash skin thoroughly with mild soap/water. Flush with lukewarm water for 15 minutes. If sticky, a waterless cleaner may be used.

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In case of skin contact with molten product, flood affected areas with cool water for 15 minutes. Do **not** attempt to remove adhered material from skin. Obtain emergency medical attention.

INGESTION

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. However, if ingested, obtain emergency medical attention.

10. SPILL AND DISPOSAL

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED

Material can create slipping hazard on any hard surface. Remove spilled material immediately from hard, smooth walking surfaces. Sweep/shovel contaminated material into suitable disposal containers. Minimize airborne dusting. Report per regulatory requirements.

WASTE DISPOSAL METHODS

When discarded in its purchased form, this product is not a RCRA hazardous waste. However, it is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste. Comply with all applicable federal, state and local regulations. Waste disposal options include landfilling solids at permitted sites. Use registered transporters.

11. ADDITIONAL PRECAUTIONS

HANDLING AND STORAGE PROCEDURES

Store material in a cool, dry place. Keep away from sparks and open flame. Flaked forms are prone to gradual oxidation.

This material is not expected to present a dust explosion hazard during normal transportation and storage operations. However, a significant dust explosion can occur when an excessive concentration of dust is dispersed in air and is subject to an ignition source of sufficient energy. Minimize the potential for dust explosion by eliminating/controlling ignition sources (bond and ground) and by using good housekeeping practices during storage, transfer, and handling. Ensure equipment is adequately grounded. Prevent dust from accumulating on overhead horizontal surfaces and prevent dust from escaping from process equipment. Use explosion relief vents on dust collectors and dust handling equipment. Electrical equipment should conform to the National Electric Code.

This material is sensitive to electrostatic discharge ignition. Static electricity can be generated when pouring this material into a receiving vessel. Prevent electrostatic charge formation by bonding and grounding containers and vessels. 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

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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.

DECONTAMINATION PROCEDURES

Follow standard plant procedures or supervisor's instructions for decontamination operations.

12. LABEL INFORMATION

USE STATEMENT

FOR INDUSTRIAL USE ONLY

SIGNAL WORD

CAUTION

PHYSICAL HAZARDS

POTENTIAL DUST EXPLOSION HAZARD

PRECAUTIONARY MEASURES

PREVENT ELECTROSTATIC CHARGE FORMATION.

PREVENT DUST ACCUMULATION.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

AVOID CONTACT WITH EYES.

AVOID PROLONGED CONTACT WITH SKIN.

AVOID CONTACT WITH MOLTEN PRODUCT.

AVOID BREATHING DUST/VAPORS GENERATED FROM THERMAL PROCESSING.

USE WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.

REMOVE SPILLED MATERIAL IMMEDIATELY FROM HARD, SMOOTH WALKING SURFACES.

WASH THOROUGHLY AFTER HANDLING.

BEFORE USING PRODUCT, READ MATERIAL SAFETY DATA SHEET (MSDS).

13. SUPPLEMENT

REGULATORY INFORMATION

TSCA STATUS

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.

CALIFORNIA PROPOSITION 65 INFORMATION

California Proposition 65 Information: this product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

INTERNATIONAL INVENTORY STATUS

Australia (AICS):	Included on inventory
Canada (DSL):	Included on inventory
China (IECSC):	Not included on inventory
Europe (EINECS):	Polymer
Japan (ENCS):	Not included on inventory
Korea (ECL):	Included on inventory

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Philippines (PICCS):	Not included on inventory
New Zealand:	Included on interim inventory

*Note - qualifiers and codes used in this MSDS

EQ = Equal; AP = Approximately; LT = Less Than; GT = Greater Than;
TR = Trace; UK = Unknown; N/AP = Not Applicable; N/P = No Applicable
Information Found; N/DA = No Data Available

14. DISCLAIMERS

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).