

Material Safety Data Sheet

Bicyclo(2.2.1)hepta-2,5-diene, 96%, stabilized with 0.05-0.25% BHT

ACC# 90747

Section 1 - Chemical Product and Company Identification

MSDS Name: Bicyclo(2.2.1)hepta-2,5-diene, 96%, stabilized with 0.05-0.25% BHT

Catalog Numbers: AC106240000, AC106240050, AC106240500, AC106241000, AC106242500, AC106245000, XXAC10624-25KG

Synonyms: 2,5-Norbornadiene.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
121-46-0	Bicyclo[2.2.1]hepta-2,5-diene	96	204-472-0

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Clear liquid. Flash Point: -12 deg C.

Danger! Extremely flammable liquid and vapor. Vapor may cause flash fire. Causes eye, skin, and respiratory tract irritation. May be harmful if swallowed.

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: May cause respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Extremely flammable liquid and vapor. Vapor may cause flash fire. This liquid floats on water and may travel to a source of ignition and spread fire.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide.

Flash Point: -12 deg C (10.40 deg F)

Autoignition Temperature: 350 deg C (662.00 deg F)

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 3; Instability: 1

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Scoop up with a nonsparking tool, then place into a suitable container for disposal. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat, sparks and flame. Avoid breathing vapor or mist.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Keep under a nitrogen blanket. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Bicyclo[2.2.1]hepta-2,5-diene	none listed	none listed	none listed

OSHA Vacated PELs: Bicyclo[2.2.1]hepta-2,5-diene: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear

Odor: Not available.

pH: Not available.

Vapor Pressure: 25.5 mm Hg @ 25 deg C

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: 0.85 mPas 20 deg C

Boiling Point: 89 deg C @ 760 mm Hg

Freezing/Melting Point: -19 deg C

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: .85

Molecular Formula: C₇H₈

Molecular Weight: 92.14

Section 10 - Stability and Reactivity

Chemical Stability: Unstable.

Conditions to Avoid: Mechanical shock, ignition sources, excess heat.

Incompatibilities with Other Materials: Strong acids, strong bases, strong oxidizing agents, and air.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 121-46-0: RB6535000

LD50/LC50:

CAS# 121-46-0:

Inhalation, mouse: LC50 = 27700 ppm/30M;

Inhalation, rat: LC50 = 14100 ppm/8H;

Oral, mouse: LD50 = 3850 mg/kg;

Carcinogenicity:

CAS# 121-46-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	BICYCLO{2,2,1}HEPTA-2,5-DIENE, STABILIZED	BICYCLO(2,2,1)HEPTA-2,5-DIENE
Hazard Class:	3	3
UN Number:	UN2251	UN2251
Packing Group:	II	II
Additional Info:		FLASHPOINT -12 C

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 121-46-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 121-46-0 can be found on the following state right to know lists: Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

F

Risk Phrases:

R 11 Highly flammable.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 29 Do not empty into drains.

S 33 Take precautionary measures against static discharges.

S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 121-46-0: No information available.

Canada - DSL/NDSL

CAS# 121-46-0 is listed on Canada's NDSL List.

Canada - WHMIS

This product has a WHMIS classification of B2.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997

Revision #3 Date: 3/18/2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.