

# SDS

## SAFETY DATA SHEET

Oakwood Products, Inc  
730 Columbia HWY N  
Estill, SC 29918  
[www.oakwoodchemical.com](http://www.oakwoodchemical.com)

**Phone Numbers:**

|                          |              |
|--------------------------|--------------|
| Product Information      | 803-739-8800 |
| Transportation Emergency | 800-451-8346 |
| Outside the USA          | 760-602-8700 |

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**MATERIAL IDENTIFICATION**

NAME: 2-Bromo-3,3,4,4,4-pentafluoro-1-butene  
CAS#: [68318-95-6]  
CAT#: 010254  
For R&D use only.

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**HAZARDS IDENTIFICATION****GHS Classification**

Acute toxicity, oral (Category 4)  
Skin corrosion/irritation (Category 2)  
Serious eye damage/eye irritation (Category 2A)  
Respiratory tract irritation (Category 3)

**GHS Label elements, including precautionary statements**

Pictograms



Signal Word

Warning

Hazard Statement(s)

|      |                                  |
|------|----------------------------------|
| H302 | Harmful if swallowed             |
| H315 | Causes skin irritation           |
| H319 | Causes serious eye irritation    |
| H335 | May cause respiratory irritation |

Precautionary Statement(s)

|                    |                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------|
| P261               | Avoid breathing dust/fume/gas/mist/vapours/spray.                                                |
| P301 + P312        | IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.                       |
| P302 + P352        | IF ON SKIN: wash with plenty of soap and water.                                                  |
| P304 + P340        | IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove                              |

contact lenses, if present and easy to do. Continue rinsing.

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## COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 2-Bromo-3,3,4,4,4-pentafluorobutylene, 2-Bromo-3,3,4,4,4-pentafluorobut-1-ene  
Formula : C<sub>4</sub>H<sub>2</sub>BrF<sub>5</sub>  
Molecular Weight : 224.96 g/mol

| CAS        | Description                            | Concentration |
|------------|----------------------------------------|---------------|
| 68318-95-6 | 2-Bromo-3,3,4,4,4-pentafluoro-1-butene | 98%           |

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## FIRST AID MEASURES

### In case of eye contact

Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

### In case of skin contact

Wash thoroughly with soap and plenty of water. Seek medical attention.

### If inhaled

Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

### If swallowed

Do not induce vomiting. Give water to victim to drink. Seek medical attention.

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## FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

### Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### Unusual fire and explosion hazards/decomposition of product

emits toxic fumes under fire conditions.

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## ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

### Environmental precautions

Prevent further leakage if safe to do so.

### Methods and materials for containment and clean up

Absorb spills on sand or vermiculite and place in closed container for disposal.

## HANDLING AND STORAGE

### Precautions for safe handling

Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

### Precautions for safe storage

Keep container tightly closed. Store in a cool, dry, well-ventilated area.

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## EXPOSURE CONTROL/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Eye/face protection

Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

#### Hand/skin protection

Avoid all direct contact with product.

Wear chemical-resistant gloves.

Wear protective clothing and boots.

After contact with skin, wash immediately.

#### Respiratory protection

Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

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## PHYSICAL AND CHEMICAL PROPERTIES

|                                              |                        |
|----------------------------------------------|------------------------|
| Appearance                                   | clear colorless liquid |
| Odour                                        | no data available      |
| Odour Threshold                              | no data available      |
| Melting point/Freezing Point                 | no data available      |
| Boiling Point                                | 56-58°C                |
| Flash Point                                  | no data available      |
| Evaporation Rate                             | no data available      |
| Flammability (solid, gas)                    | no data available      |
| Upper/Lower Flammability or Explosive limits | no data available      |
| Vapour pressure                              | no data available      |
| Relative Density                             | no data available      |
| Solubility(ies)                              | no data available      |
| Partition coefficient: n-octanol/water       | no data available      |
| Auto-ignition temperature                    | no data available      |
| Decomposition temperature                    | no data available      |
| Viscosity                                    | no data available      |
| Refractive Index                             | no data available      |

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## STABILITY AND REACTIVITY

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

no data available

**Conditions to avoid**

no data available

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

May evolve carbon monoxide, carbon dioxide, hydrogen bromide, and hydrogen fluoride.

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**TOXICOLOGICAL INFORMATION****Acute toxicity**

no data available

**Skin corrosion/irritation**

Causes skin irritation

**Serious eye damage/eye irritation**

Causes serious eye irritation

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**STOT-single exposure**

May cause respiratory irritation

**STOT-repeated exposure**

no data available

**Aspiration hazard**

no data available

**Exposure Routes**

Irritating to skin, eyes, and respiratory system.

May have harmful effects if inhaled or swallowed.

To the best of our knowledge, the health hazards of this material have not been fully investigated.

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**ECOLOGICAL INFORMATION**

**Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

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**DISPOSAL CONSIDERATIONS**

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

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**TRANSPORT INFORMATION****DOT**

Classed non-hazardous for shipping.

**IMDG**

Classed non-hazardous for shipping.

**IATA**

Classed non-hazardous for shipping.

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**REGULATORY INFORMATION****SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

**New Jersey Right to Know Components**

This product may contain a chemical on the New Jersey Right to Know Components List.

2-Bromo-3,3,4,4,4-pentafluoro-1-butene

**CAS**

68318-95-6

**California Prop. 65 Components**

This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

## OTHER INFORMATION

Version : 1.2

Revision Date : 6/27/2018

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.