



# Safety Data Sheet

Revision Date 8-Aug-2022

Revision Number 3

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier** Product Name nPB Super Booster**Recommended use of the chemical and restrictions on use****Recommended Use** For use with Lenium ES and Lenium GS in vapor degreasing equipment.**Uses advised against** FOR INDUSTRIAL USE ONLY**Details of the supplier of the safety data sheet**

**Supplier** Vantage Specialties, Inc.  
**Address** 3938 Porett Drive  
Gurnee, IL 60031 USA  
847-244-3410

**Emergency Telephone Number**

**Company Phone Number** 847-244-3410  
**Emergency Telephone Number** CHEMTREC International +1-703-527-3887  
CHEMTREC USA: 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

**Classification**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

**Label Elements**

### EMERGENCY OVERVIEW

**Hazard statements**

Causes eye irritation  
Causes skin irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness  
May cause cancer  
May damage fertility or the unborn child  
Causes damage to the nervous system through prolonged or repeated exposure.  
May cause damage to organs (lungs, liver, and kidney) through prolonged or repeated exposure.

**Color** Colorless**Physical State** Liquid**Odor** Characteristic

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Avoid breathing vapors or mists  
Wear eye/face protection  
Wear protective gloves  
In case of inadequate ventilation wear respiratory protection

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Consult a physician if breathing is difficult or other respiratory symptoms develop.  
IF ON SKIN: Rinse exposed skin with plenty of water. If skin irritation occurs: get medical advice/attention.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

**Hazards not otherwise classified (HNOC)**

Vapors may become flammable if not controlled.  
Vapors may displace oxygen and cause rapid suffocation.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Product description** Azeotropic mixture of solvents

Chemical Name	CAS-No.	Weight %
1-Bromopropane	106-94-5	80-90
1,2-Epoxybutane	106-88-7	10-15
Dimethoxymethane	109-87-5	< 3
2-Methyl-2-propanol	75-65-0	< 3

**4. FIRST AID MEASURES****FIRST AID MEASURES****Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, consult a specialist.

**Skin contact**

IF ON SKIN: Wash with plenty of water, If skin irritation occurs: Get medical attention.

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult; consult a physician.

**Ingestion**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Seek immediate medical attention.

**Most important symptoms and effects, both acute and delayed****Symptoms**

Headache/dizziness. Irritation or pain in contact with skin or eyes.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician**

Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Class ABC/BC fire extinguisher. Dry chemical. Carbon dioxide. Water spray. Alcohol-resistant foam.

### Large Fires

Cool closed containers with water spray. Closed containers will build pressure if exposed to flame or intense heat. This may lead to violent bursting of containers.

### Unsuitable extinguishing media

None identified.

### Specific hazards arising from the chemical

Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing. Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars, etc.). Vapors may become flammable if not controlled.

### Hazardous combustion products

May release hydrogen bromide, carbon monoxide, and carbon dioxide if exposed to flames or intense heat. Decomposition begins at approximately 200°C (400°F).

### Explosion Data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

### Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear in confined spaces.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.

**For emergency responders** Use personal protective equipment as required. Remove all sources of ignition. Vapors from this product are heavier than air and may displace oxygen in confined spaces or low areas.

**Environmental precautions** Prevent release to surface water.

### Methods and material for containment and cleaning up

**Methods for Cleaning Up** Wear personal protective equipment. Absorb with inert material and transfer to containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Handling** Wear personal protective equipment. Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat and sources of ignition.

**Incompatible materials** Acids. Bases. Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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1-Bromopropane 106-94-5	TWA: 0.1 ppm	not established	-
Dimethoxymethane 109-87-5	TWA: 1000 ppm	100 ppm	-
2-Methyl-2-propanol 75-65-0	TWA: 100 ppm	100 ppm	-

**Appropriate engineering controls**

**Engineering Measures** Provide general or local ventilation in work area to maintain vapor concentration below exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/face Protection** Safety glasses with side-shields.

**Skin and Body Protection** Protective gloves. Long sleeved clothing.

**Respiratory Protection** Use NIOSH/MSHA approved respirator if ventilation is not sufficient to control vapors.

**Hygiene Measures** Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Characteristic
<b>Appearance</b>	Clear		
<b>Color</b>	Colorless		

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
pH		Not Applicable
Melting point/freezing point		
Boiling point/boiling range	71 °C / 160 °F	
Flash Point	None to boiling	
Evaporation Rate	1	Pensky-Martens closed cup ASTM D 93 (BUAC = 1)
Flammability (solid, gas)		
Flammability Limits in Air		
Upper flammability limits	8%	
Lower Flammability Limit	4%	
Vapor pressure	>100 mm Hg	
Vapor Density	4.3	Data for nPB @ 25°C
Specific Gravity	1.32	
Water Solubility	Insoluble	
Solubility in other solvents		
Partition coefficient	2.10	Data for 1-bromopropane
Autoignition Temperature		Not determined
Decomposition temperature		Not determined
Kinematic viscosity		Not determined
Dynamic viscosity		Not determined
VOC Content	100%	

## 10. STABILITY AND REACTIVITY

**Reactivity** Not reactive

**Chemical stability** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

**Hazardous Reactions** None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Conditions to Avoid** Excessive heat, flames, and sparks.  
**Incompatible materials** Acids. Bases. Strong oxidizing agents.

**Hazardous Decomposition Products** May form hydrogen bromide.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Product Information** No acute toxicity information is available for this product. Data for the individual constituents is shown below.

**Inhalation** Harmful by inhalation.  
**Eye contact** Avoid contact with eyes.  
**Skin contact** Avoid contact with skin.  
**Ingestion** May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1-Bromopropane 106-94-5	= 3600 mg/kg ( Rat )		= 253 g/m <sup>3</sup> ( Rat ) 30 min
1,2-Epoxybutane 106-88-7	= 500 mg/kg ( Rat )	= 1757 mg/kg ( Rabbit )	= 6300 mg/m <sup>3</sup> ( Rat ) 4 h
Dimethoxymethane 109-87-5	= 6653 mg/kg ( Rat )		
2-Methyl-2-propanol 75-65-0	= 2200 mg/kg ( Rat )	> 2 g/kg ( Rabbit )	> 10000 ppm ( Rat ) 4 h

### Information on toxicological effects

**Symptoms** Inhalation of vapors may cause dizziness, headache, drowsiness, and irritation of respiratory tract.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
1-Bromopropane 106-94-5			(RAHC) Reasonably anticipated to be a human carcinogen	
1,2-Epoxybutane 106-88-7		Group 2B		X

**Reproductive Toxicity** 1-Bromopropane is suspected of causing reproductive and developmental damage.

**STOT - single exposure** Inhalation of vapors may affect the central nervous system and cause respiratory irritation.

**STOT - repeated exposure** Long term exposure to 1-bromopropane via inhalation may cause damage to the liver and nervous system. May cause disorder and damage to the Peripheral Nervous System (PNS).

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
1-Bromopropane		LC50= 67.3 mg/L Pimephales promelas 96 h		
1,2-Epoxybutane	EC50 > 500 mg/L 72 h	LC50 100 - 220 mg/L Leuciscus idus 96 h	EC50 = 4840 mg/L 17 h	EC50 = 69.8 mg/L 48 h

Dimethoxymethane		LC50 6260 - 7800 mg/L Pimephales promelas 96 h		
2-Methyl-2-propanol	EC50 > 1000 mg/L 72 h	LC50 6130 - 6700 mg/L Pimephales promelas 96 h	EC50 > 10000 mg/L 17 h	EC50 = 933 mg/L 48 h

**Persistence and degradability**

Chemical Name	Partition coefficient
1,2-Epoxybutane 106-88-7	= 0.416
2-Methyl-2-propanol 75-65-0	= 0.35

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Method</b>	This material must undergo special treatment (incineration) at a suitable disposal site to comply with applicable regulations.
<b>Contaminated Packaging</b>	Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

<b>DOT</b>	NA3082, Other regulated substances, Liquid, n.o.s. (1-Bromopropane mixture, non-flammable), 9, PGIII RQ
<b>TDG</b>	Not regulated
<b>MEX</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG / IMO</b>	Not regulated

**15. REGULATORY INFORMATION****International Inventories**

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory, **DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List, **ENCS** - Japan Existing and New Chemical Substances, **IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances, **PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372: 1,2-epoxybutane, 2-methyl-2-propanol.

Chemical Name	CAS-No.	Weight %	SARA 313 - Threshold Values %
1,2-Epoxybutane - 106-88-7	106-88-7	10-15	0.1
2-Methyl-2-propanol - 75-65-0	75-65-0	< 3	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
1-Bromopropane 106-94-5	1 lb		1 lb
1,2-Epoxybutane 106-88-7	100 lb		100 lbs.

**U.S. State Regulations**

Chemical Name	California Prop. 65
1-Bromopropane - 106-94-5	Carcinogen / Developmental Female Reproductive / Male Reproductive

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
1-Bromopropane 106-94-5	X	X	X
1,2-Epoxybutane 106-88-7	X	X	X
Dimethoxymethane 109-87-5	X	X	X
2-Methyl-2-propanol 75-65-0	X	X	X

**16. OTHER INFORMATION****NFPA**

Health Hazard 2

Flammability 1

Instability 0

**HMIS**

Health Hazard 2\*

Flammability 1

Physical hazards 0

Personal Precautions B

**Revision Date**

8-Aug-2022

**Reason for Revision**

Update to US DOT shipping status and CERCLA Hazardous Substance table.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**