

Issue Date 08-Apr-2019

Revision Date 08-Apr-2019

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** NPW - Herbicides

### Other means of identification

**Product Code** PEO-094

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** For Laboratory Use Only.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

**Supplier Address**

 NSI Lab Solutions, Inc.  
 7212 ACC Blvd.  
 Raleigh, NC 27617

**Manufacturer Address**

 NSI Lab Solutions, Inc.  
 7212 ACC Blvd.  
 Raleigh, NC 27617

### Emergency telephone number

**Company Phone Number** 800-234-7837

**FAX** 919-789-3019

**Website** www.nsilabsolutions.com

**E-mail address** nsi@nsilabsolutions.com

**Emergency Telephone** 919-349-7322

## 2. HAZARDS IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Flammable liquids	Category 2

### Label elements

#### Emergency Overview

Danger

#### Hazard statements

H315: Causes skin irritation

H225: Highly flammable liquid and vapor



<b>Appearance</b> Clear, colorless liquid	<b>Physical state</b> Liquid	<b>Odor</b> No information available
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**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ ventilating / lighting/ equipment.  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Wear protective gloves/eye protection/face protection

**Precautionary Statements - Response**

Specific treatment (see supplemental first aid on this label).  
 If skin irritation occurs: Get medical advice/attention  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 Wash contaminated clothing before reuse  
 In case of fire: Use CO2, dry chemical, or foam to extinguish

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Repeated exposure may cause skin dryness or cracking.

**Other Information**

May be harmful if swallowed. May be harmful if inhaled

Unknown acute toxicity                      100 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Chemical Name	CAS No.	Weight-%
Methyl tert-butyl ether	1634-04-4	99

Refer to Certificate of Analysis for exact percentage concentration.

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Consult a physician, if necessary.

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

**Symptoms** The most important known symptoms and effects are described in Section 2 and/or Section 11.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Carbon oxides.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** May be ignited by heat, sparks or flames.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. For precautions, see Section 2.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible materials** No information available. Bases, oxidizing agents, reducing agents, Acetone reacts violently with phosphorous oxychloride.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl tert-butyl ether 1634-04-4	TWA: 50 ppm	-	-

#### Appropriate engineering controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

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

<b>Eye/face protection</b>	Avoid contact with eyes.
<b>Skin and body protection</b>	Wear protective gloves and protective clothing.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General Hygiene Considerations** 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>	No information available
<b>Appearance</b>	Clear, colorless liquid	<b>Odor threshold</b>	No information available
<b>Color</b>	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No information available	
<b>Melting point / freezing point</b>	-94 °C -137 °F	
<b>Boiling point / boiling range</b>	56 °C 133 °F (at 760 mm Hg)	
<b>Flash point</b>	-16.99 °C 1.42 °F	Closed Cup
<b>Evaporation rate</b>	No information available	No information available
<b>Flammability (solid, gas)</b>	No information available	No information available
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	13% (V)	
<b>Lower flammability limit:</b>	2% (V)	
<b>Vapor pressure</b>	No information available	No information available
<b>Vapor density</b>	No information available	No information available
<b>Relative density</b>	No information available	No information available
<b>Water solubility</b>	Miscible in water	
<b>Solubility in other solvents</b>	No information available	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	465.0 °C 869.0 °F	
<b>Decomposition temperature</b>	No information available	No information available
<b>Kinematic viscosity</b>	No information available	No information available
<b>Dynamic viscosity</b>	No information available	No information available
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	

#### Other Information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

### Reactivity

No information available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Heat, flames and sparks.

### Incompatible materials

No information available. Bases, oxidizing agents, reducing agents, Acetone reacts violently with phosphorous oxychloride.

### Hazardous Decomposition Products

No information available.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<b>Product Information</b>	No data available
<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.
<b>Ingestion</b>	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl tert-butyl ether 1634-04-4	= 2963 mg/kg ( Rat )	= 10000 mg/kg ( Rabbit )	= 85 mg/L ( Rat ) 4 h

### Information on toxicological effects

**Symptoms** No information available.

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

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

<b>ATEmix (oral)</b>	2,992.90
<b>ATEmix (dermal)</b>	10,101.00
<b>ATEmix (inhalation-dust/mist)</b>	85.90

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

1 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Methyl tert-butyl ether 1634-04-4	800: 72 h Desmodesmus subspicatus mg/L EC50 184: 96 h Pseudokirchneriella subcapitata mg/L EC50	672: 96 h Pimephales promelas mg/L LC50 flow-through 929: 96 h Pimephales promelas mg/L LC50 static 100: 96 h Brachydanio rerio mg/L LC50 semi-static 887: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	542: 48 h Daphnia magna mg/L EC50

### Persistence and degradability

No information available.

### Bioaccumulation

No information available.

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### Contaminated packaging

Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl tert-butyl ether 1634-04-4	-	-	-	-

Chemical Name	California Hazardous Waste Status
Methyl tert-butyl ether 1634-04-4	-

## 14. TRANSPORT INFORMATION

### DOT

Not regulated  
**Proper shipping name** Methyl tert-butyl ether  
**Hazard Class** 3  
**Packing Group** II  
**Reportable Quantity (RQ)**

### IATA

**UN/ID no.** 2398  
**Proper shipping name** Methyl tert-butyl ether  
**Hazard Class** 3  
**Packing Group** II

**IMDG**

UN/ID no.	2398
Proper shipping name	Methyl tert-butyl ether
Hazard Class	3
Packing Group	II
EmS-No.	

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 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

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

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

**CWA (Clean Water Act)**

This product, as supplied, 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, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical Name	California Proposition 65
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Methyl tert-butyl ether 1634-04-4	-
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**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Methyl tert-butyl ether 1634-04-4	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 2	Flammability 3	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 2	Flammability 3	Physical hazards 0	Personal protection X
<i>Chronic Hazard Star Legend</i>	* = Chronic Health Hazard			

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**Revision Note**

No information available

**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 Safety Data Sheet**