



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Version 01 Issuing Date: 2017-09-15

Review Date: 2021-04-14

## 1. Identification of the Substance/Mixture and of the Company/Undertaking

### 1.1 Product identifiers

Product name: Ethyl Vinyl Ether

CAS-No.: 109-92-2

REACH Registration No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Laboratory chemicals, Manufacture of substances

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

Company: Boai NKY Pharmaceuticals Ltd.

Address: No.1888 East Wenhua Road, Boai, Jiaozuo, Henan Province, China 454450.

Tel.: +86 391 8696320

Fax: +86 391 8692950

Email address: sales@boai-nky.com

### 1.4 Emergency telephone number

Emergency Phone #: +86 22 58316066

## 2. Hazards Identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids (Category 2), H225

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Globally Harmonized System (GHS)



Pictogram

Signal word

Danger

Hazard Statement(s)

H225

Highly flammable liquid and vapour

H315

Causes skin irritation

H319

Causes serious eye irritation



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H335	May Cause respiratory irritation
Precautionary statement(s)	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
P305+P351+P338	If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+P378	In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
Supplemental Hazard Statements	None

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 3. Composition/Information on Ingredients

### 3.1 Substances

Synonyms: Ethoxyethylene

Formula: C<sub>4</sub>H<sub>8</sub>O

Molecular weight: 72.11 g/mol

CAS No.: 109-92-2

EC No.: 203-718-4

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
<b>Ethyl vinyl ether</b>		
CAS-No. 109-92-2	Flam. Liq. 2; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3;	<= 100 %
EC-No. 203-718-4	H225, H315, H319, H335	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. First Aid Measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.



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### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in Section 11.

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

No data available.

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## **5. Firefighting Measures**

### **5.1 Extinguishing media:**

#### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

Use water spray to cool unopened containers

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## **6. Accidental Release Measures**

### **6.1 Personal precautions protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### **6.4 Reference to other sections**

For disposal see section 13.

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## **7. Handling and Storage**

### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.



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### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

Handle and open container with care. Air sensitive.

Storage class (TRGS 510): Flammable liquids

### 7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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## 8. Exposure Controls/Personal Protection

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### 8.1 Control parameters

**Components with workplace control parameters**

### 8.2 Exposure controls

**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

**Eye/face protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0.7 mm

Break through time: 66 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industria situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection**



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Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

### Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engine protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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## 9. Physical and Chemical Properties

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### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: clear, liquid Colour: colourless
b) Odour	No data available
c) Odour threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: 116 °C - lit.
f) Initial boiling point and boiling range	33°C - lit.
g) Flash point	-46 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available No data available
Lower explosion limit:	1.4 %(V)
Upper explosion limit:	28 %(V)
k) Vapour pressure	560 mmHg at 20 °C
l) Vapour density	2.89
m) Relative density	0.753 g/mL at 25 °C
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Autoignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

### 9.2 Other safety information



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Relative vapour density

2.89

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### 10. Stability and Reactivity

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#### 10.1 Reactivity

No data available

#### 10.2 Chemical stability

Stable under recommended storage conditions.

Contains the following stabilizer(s)

NMT 0.10% caustic potash

#### 10.3 Possibility of hazardous reactions

No data available

#### 10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

#### 10.5 Incompatible materials

Oxidizing agents, Oxygen, Acids.

#### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

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### 11. Toxicological Information

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#### 11.1 Information on toxicological effects

##### Acute toxicity

LD50 Oral - Rat - 6,144.5 mg/kg(Ethyl vinyl ether)

LC50 Inhalation - Mouse - 15 h - 324,000 mg/m<sup>3</sup>(Ethyl vinyl ether)

Remarks: Behavioral:General anesthetic.

LD50 Dermal - Rat - > 20,000 mg/kg(Ethyl vinyl ether)

##### Skin corrosion/irritation

Skin - Rabbit(Ethyl vinyl ether)

Result: Open irritation test

##### Serious eye damage/eye irritation

No data available

##### Respiratory or skin sensitisation

No data available

##### Germ cell mutagenicity

Hamster(Ethyl vinyl ether)

ovary

Sister chromatid exchange

##### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as



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probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

No data available

### **Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.(Ethyl vinyl ether)

### **Specific target organ toxicity - repeated exposure**

No data available

### **Aspiration hazard**

No data available

### **Additional Information**

RTECS: KO0710000

Liver injury may occur., inhalation or ingestion may produce an intense excited state, Unconsciousness, respiratory paralysis, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting(Ethyl vinyl ether)

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## **12. Ecological Information**

### **12.1 Toxicity**

No data available

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

### **12.6 Other adverse effects**

No data available

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## **13. Disposal Considerations**

### **13.1 Waste treatment methods**

#### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### **Contaminated packaging**

Dispose of as unused product.

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## **14. Transport Information**

### **14.1 UN number**

ADR/RID: 1302 IMDG: 1302 IATA: 1302



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### 14.2 UN proper shipping name

ADR/RID: VINYL ETHYL ETHER, STABILIZED

IMDG: VINYL ETHYL ETHER, STABILIZED

IATA: VINYL ETHYL ETHER, STABILIZED

### 14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

### 14.4 Packaging group

ADR/RID: I IMDG: I IATA: I

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### 14.6 Special precautions for user

No data available

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## 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

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## 16. Other Information

### Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation

H335 May cause respiratory irritation

### Further information

The above information is believed to be correct, but does not intend to be all-inclusive and shall be used only as a guide. This material safety data sheet is based on our current knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any assurance on product properties and does not constitute a contractual legal relationship.

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