



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Version 01 Issuing Date: 2020-06-20

Review Date: 2021-04-14

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

### 1.1 Product identifiers

Product name: 1-Vinylimidazole

CAS-No.: 1072-63-5

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

Identified uses: Laboratory chemicals, Synthesis 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

GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Flammable liquids (Category 4), H227

Acute toxicity, Oral (Category 4), H302

Serious eye damage (Category 1), H318

Reproductive toxicity (Category 1B), H360

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

### 2.2 GHS Label elements, including precautionary statements

#### Pictogram



**Signal word:** Danger

Hazard statement(s)

H227	Combustible liquid.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H360	May damage fertility or the unborn child.

Precautionary statement(s)

P201	Combustible liquid.
P202	Do not handle until all safety precautions have been read and



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P210	understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403	Store in a well-ventilated place.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

- none

## 3. Composition/Information on Ingredients

### 3.1 Substances

Formula: C<sub>5</sub>H<sub>6</sub>N<sub>2</sub>

Molecular weight: 94.11 g/mol

CAS-No.: 1072-63-5

EC-No.: 214-012-0

Component	Classification	Concentration *
1-vinylimidazole	Flam. Liq. 4; Acute Tox. 4; Eye Dam. 1; Repr. 1B; H227, H302, H318, H360	<= 100 %
* Weight percent		

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. Move out of



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dangerous area.

### **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.

### **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 labelling (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.

#### **Unsuitable extinguishing media**

Do NOT use water jet.

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

Carbon oxides, nitrogen oxides (NO<sub>x</sub>).

Combustible.

### **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.



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

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## 7. Handling and Storage

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### 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.

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

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.

hygroscopic Light sensitive.

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

### 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

### 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

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: > 480 min



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Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0.6 mm

Break through time: 93 min

Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

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 industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body protection

Complete suit protecting against chemicals, 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 a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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: liquid Color: yellow
b) Odour	amine-like
c) Odour threshold	No data available
d) pH	9 - 11 at 20 °C (68 °F)
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	78 - 79 °C 172 - 174 °F at 17 hPa - lit. 192 - 194 °C (378 - 381 °F) - lit.
g) Flash point	84 °C (183 °F) - Pensky-Martens closed cup - DIN 51758
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	0.38 hPa at 20 °C (68 °F) - OECD Test Guideline 104
l) Vapour density	No data available



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m) Relative density	1.039 g/cm <sup>3</sup> at 25 °C (77 °F) - lit.
n) Water solubility	completely miscible
o) Partition coefficient: n-octanol/water	log Pow: 0.54 at 25 °C (77 °F) - OECD Test Guideline 107 - Bioaccumulation is not expected.
p) Autoignition temperature	No data available
q) Decomposition temperature	220 °C (428 °F), 2 K/min, 1,000 kJ/kg - 2.12 mm <sup>2</sup> /s at 20 °C (68 °F) - OECD Test Guideline 114 - 1.44 mm <sup>2</sup> /s at 40 °C (104 °F) - OECD Test Guideline 114 -
r) Viscosity	
s) Explosive properties	No data available
t) Oxidizing properties	No data available

### 9.2 Other safety information

Dissociation constant 5.62 at 20 °C (68 °F)

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## 10. Stability and Reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Avoid moisture. Heat Light.

Heat, flames and sparks.

### 10.5 Incompatible materials

No data available

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

Other decomposition products - No data available

In the event of fire: see section 5

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## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 1,040 mg/kg

(OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rat - male and female - > 2,000 mg/kg

(OECD Test Guideline 402)



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No data available

### **Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

### **Serious eye damage/eye irritation**

Eyes - In vitro study

Result: Corrosive

(Hen's egg-membrane test for irritation (HET-CAM))

Eyes - Rabbit

Result: Irreversible effects on the eye

(OECD Test Guideline 405)

### **Respiratory or skin sensitization**

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

### **Germ cell mutagenicity**

### **Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### **Reproductive toxicity**

May damage the unborn child.

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

No data available

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

No data available

### **Aspiration hazard**

No data available

### **Additional Information**

RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

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## **12. Ecological Information**

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### **12.1 Toxicity**

Toxicity to fish	static test LC50 - Leuciscus idus (Golden orfe) - > 100 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)



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invertebrates

Toxicity to algae static test ErC50 - *Desmodesmus subspicatus* (green algae) - > 100 mg/l - 72 h  
(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - *Pseudomonas putida* - > 1,000 mg/l - 7 h  
(DIN 38421 TEIL 8)

### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d  
Result: < 10 % - Not inherently biodegradable.  
(OECD Test Guideline 301B)

### 12.3 Bioaccumulation potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

No data available

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## 13. Disposal Considerations

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

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## 14. Transport Information

### DOT (US)

UN number: 3267 Class: 8 Packing group: II

Proper shipping name: Corrosive liquid, basic, organic, n.o.s. (1-vinylimidazole)

Reportable Quantity (RQ):

Poison Inhalation Hazard: No

### IMDG

UN number: 3267 Class: 8 Packing group: II EMS-No: F-A, S-B

Proper shipping name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (1-vinylimidazole)

### IATA

UN number: 3267 Class: 8 Packing group: II

Proper shipping name: Corrosive liquid, basic, organic, n.o.s. (1-vinylimidazole)





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### 15. Regulatory Information

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This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

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### 16 Other Information

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#### **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 assurances on product properties and does not constitute a contractual legal relationship.*

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