



## Safety Data Sheet

Version 01 Issuing Date: 2019-08-12

Review Date: 2021-04-14

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### 1. Identification

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#### 1.1 Product identifier used on the label

Product name: VP/VI 55 Copolymer

Brand name: Nokesho 55 Powder

CAS-No.: 29297-55-0

#### 1.2 Recommended use of the chemical and restriction on use

Recommended use\*: Raw material for the chemical-technical industry

Recommended use\*: formulation auxiliary

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

#### 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

#### 1.5 Other means of identification

Chemical family: vinyl polymer

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### 2. Hazards Identification

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According to Regulation NOM-018-STPS-2015

#### 2.1 Classification of the product

Skin Corr./Irrit. 2 Skin corrosion/irritation

#### 2.2 Label elements

Pictogram:



Signal Word:

Warning

Hazard Statement:

H315 Causes skin irritation.

Precautionary Statements (Prevention):

P280 Wear protective gloves.



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P264 Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

### 2.3 Hazards not otherwise classified

Fine dust produced by abrasion can form explosive mixtures with air.

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### 3. Composition/Information on Ingredients

#### 3.1 Substance

CAS Number	Weight %	Chemical name
29297-55-0	>= 95.0%	(PLC) 2-Pyrrolidinone, 1-ethenyl-, polymer with 1-ethenyl-1H-imidazole

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### 4. First Aid Measures

#### 4.1 Description of first aid measures

##### General advice:

Remove contaminated clothing.

##### If inhaled

Keep patient calm, remove to fresh air, seek medical attention.

##### If on skin:

Wash thoroughly with soap and water.

##### If in eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

##### If swallowed

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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### 5. Firefighting Measures

#### 5.1 Extinguishing media:

Suitable extinguishing media:

dry powder, foam

Unsuitable extinguishing media for safety reasons:

carbon dioxide



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Additional information:

Avoid whirling up the material/product because of the danger of dust explosion.

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

Hazards during fire-fighting:

harmful vapours, carbon oxides, nitrogen oxides

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

### 5.3 Advice for firefighters

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

### 5.4 Further information

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

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## 6. Accidental Release Measures

Further accidental release measures:

Forms slippery surfaces with water.

### 6.1 Personal precautions protective equipment and emergency procedures

Avoid dust formation. Use personal protective clothing. Information regarding personal protective measures see, section 8.

### 6.2 Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

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

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Contain with dust binding material and dispose of.

Avoid raising dust. Dispose of absorbed material in accordance with regulations.

Nonsparking tools should be used.

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## 7. Handling and Storage

### 7.1 Precautions for safe handling

Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protect against moisture.

Protection against fire and explosion:

Take precautionary measures against static discharges. The product is capable of dust explosion.

Dust explosion class: Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1).

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

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE)

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.



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Storage stability:

Storage temperature: 10 - 25 ° C

Storage duration: 12 Months

Protect from temperatures above: 40 ° C

The packed product will be damaged by high temperatures.

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### 8. Exposure Controls/Personal Protection

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No occupational exposure limits known.

#### 8.1 Advice on system design:

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

#### 8.2 Personal protective equipment

##### Respiratory protection:

Breathing protection if dusts are formed. Wear a NIOSH approved (or equivalent) particulate respirator if ventilation is inadequate to control dust.

##### Hand protection:

Chemical resistant protective gloves

##### Eye protection:

Wear face shield or tightly fitting safety goggles (chemical goggles) if splashing hazard exists.

##### Body protection:

Body protection must be chosen based on level of activity and exposure.

##### General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment.

No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

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### 9. Physical and Chemical Properties

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#### 9.1 Information on basic physical and chemical properties

a) Form:	podwer	
b) Odour:	product specific	
c) Odour threshold:	not determined	
d) Colour:	white to yellow	
e) pH value:	approx. 8 ( 10 %(m))	(DIN 19268)
f) Melting point:	approx. 178 ° C	
g) Boiling point:	not determined	
h) Flash point:	not applicable, the product is a solid	



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i) Flammability:	hardly combustible
j) Lower explosion limit:	( 20 ° C, 1 bar) (VDI 2263) The lower explosion limit of dust has been determined.
k) Upper explosion limit:	For solids not relevant for classification and labelling.
l) Autoignition:	approx. 440 ° C (VDI 2263, sheet 1, 2.6)
m) Vapour pressure:	not determined
n) Density:	Study does not need to be conducted.
o) Relative density:	Study does not need to be conducted.
p) Bulk density:	approx. 450 kg/m <sup>3</sup> (ISO 697)
q) Vapour density:	not determined
r) Partitioning coefficient n-octanol/water (log Pow):	approx. 229 ° C (VDI 2263, sheet 1, 1.4.1)
s) Self-ignition temperature:	No self ignition was observed up to the specified temperature.
t) Thermal decomposition:	approx. 230 ° C, > 780 kJ/kg (DSC (DIN 51007))
u) Viscosity, dynamic:	not applicable
v) Viscosity, kinematic:	not applicable, the product is a solid
w) Particle size:	No data available.
x) Solubility in water:	approx. 400 g/l
y) Solubility (qualitative):	Soluble solvent(s): polar solvents,
z) Evaporation rate:	No data available.
aa) Other Information:	If necessary, information on other physical and chemical al and chemical

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### 10. Stability and Reactivity

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#### 10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

not fire-propagating

Dust explosivity characteristics:

Kst: approx. 156 m.bar/s (VDI 2263)

Dust explosion class:

Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1) (St 1)

Minimum ignition energy:

> 10 - < 30 mJ, approx. 1,013 hPa, approx. 20 ° C, Inductivity: 1 mH, Grain size distribution: 45 µm  
(VDI 2263, sheet 1, 2.5)

#### 10.2 Chemical stability



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The product is stable if stored and handled as prescribed/indicated.

### 10.3 Possibility of hazardous reactions

The product may contain explosive fine dust or such dust may be produced by abrasion during transport or product transfer.

### 10.4 Conditions to avoid

Avoid dust formation. Avoid humidity.

### 10.5 Incompatible materials

carbon steel (iron), light metals, strong bases, strong acids, mild steel, reactive chemicals

### 10.6 Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

approx. 230 ° C, 2.5 K/min (DSC (DIN 51007))

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## 11. Toxicological Information

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### 11.1 Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

### 11.2 Acute toxicity/effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

Dermal

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

Assessment other acute effects

No data available.

Irritation / corrosion

Assessment of irritating effects: Causes skin irritation. Not irritating to the eyes.

Skin

Species: rabbit

Result: Irritant.



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Information on: Copolymer of 1-vinylimidazole and 1-vinyl-2-pyrrolidone

Species: rabbit

Result: Irritant.

Eye

Species: rabbit

Result: non-irritant

Sensitization

Assessment of sensitization: No data available.

Aspiration Hazard

not applicable

### 11.3 Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No data available.

Genetic toxicity

Assessment of mutagenicity: No data available.

Carcinogenicity

Assessment of carcinogenicity: No data available.

Reproductive toxicity

Assessment of reproduction toxicity: No data available.

Teratogenicity

Assessment of teratogenicity: No data available.

Other Information

The product has not been tested. The statements on toxicology have been derived from products of a similar structure and composition.

### 11.4 Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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## 12. Ecological Information

### 12.1 Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Toxicity to fish

LC50 (96 h) > 100 mg/l, Brachydanio rerio

Aquatic invertebrates

EC50 (48 h) > 100 mg/l, Daphnia magna

Aquatic plants

EC50 (72 h) > 100 mg/l, algae



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acute Effect

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available.

### 12.2 Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

### 12.3 Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O)

Not readily biodegradable (by OECD criteria).

Elimination information

< 20 % DOC reduction (24 h) (OECD 303A; ISO 11733; 92/69 EEC,V, C.10) Poorly eliminated from water.

### 12.4 Bioaccumulation potential

Assessment bioaccumulation potential

Accumulation in organisms is not to be expected.

### 12.5 Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

### 12.6 Additional information

Add. remarks environm. fate & pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

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## 13. Disposal Considerations

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### 13.1 Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations.

Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with national, state and local regulations.

### 13.2 Container disposal:

Dispose of in accordance with national, state and local regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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## 14. Transport Information

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### Land transport

TDG

Not classified as a dangerous good under transport regulations

### Sea transport





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IMDG Not classified as a dangerous good under transport regulations

**Air transport**

IATA/ICAO Not classified as a dangerous good under transport regulations

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### 15. Regulatory Information

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#### 15.1 Federal Regulations

No data available

#### 15.2 NFPA Hazard codes:

Health: 2      Fire: 1      Reactivity: 0      Special:

#### 15.3 HMIS III rating

Health: 2      Flammability: 1      Physical hazard: 0

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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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