

ZHEJIANG NEW VISION CHEMICAL MATERIAL CO. , LTD  
Room 1406,Caihong Building,16# S. Caihong Road,Ningbo 315040

## CERTIFICATE OF ANALYSIS

<b>COMMODITY:</b> DECAMETHYLCYCLOPENTASILOXANE		
<b>MODEL:</b> NV-PC301		
<b>QUANTITY:</b> 15200KGS	<b>LOT NO. :</b> 20230112	
<b>MFG DATE :</b> JAN.12,2023	<b>ANALYSIS DATE:</b> JAN.12,2023	
<b>VALIDITY PERIOD:</b> JAN.12,2023-JAN.11,2024	<b>STANDARD:</b> ENTERPRISE STANDAARD	
ITEM	SPECIFICATIONS	RESULTS
Appearance	Colorless and transparent liquid	Conforms
D4 content (%)	<0.1%	0.0211
D5 content (%)	≥99	99.9789
Viscosity(25°C,mm <sup>2</sup> /s)	3.0-5.0	4.10
Result:Qualified		

Note:EXP.Date is the recommended cut-off time before package of goods is intact.

**Analyst:** Senlin Xu

**Checker:** Peisong Liu



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NewVision-PC301 Cosmetic SilFluid  
Decamethylcyclopentasiloxane (D5)

**INCI name :** Decamethylcyclopentasiloxane

**Model:** NV-PC301

**Main Composition:** Decamethylcyclopentasiloxane

**Molecular Structure:**

$C_{10}H_{30}O_5Si_5$

- [-(CH<sub>3</sub>)<sub>2</sub>SiO -]<sub>5</sub>

**Cas No.:**541-02-6

**Specifications:**

Appearance: Colorless transparent

Chroma (Co-Pt): ≤10

Refractive index (25°C): 1.3960—1.3980

D5 mass fraction% ≥99.0

**Applications:**

General feature: Less odor.

Hair care: Reduce drying time, remove thick sense, comb-wet.

Skin care: No irritation, no blocking, easy to smear, reduce greasy feeling, rapid absorption, pigment deposition, smooth feeling/softening effect.

Antiperspirant / deodorant: Reduce sticky feeling, has dry feeling in use, no imprinting on clothing surface, increase slippery

**Precaution:**

The mixture of vapor and air is explosive. Fine dispersion can easily form explosive mixture in the air and static accumulation to ignite. Avoid the fire hazard possibility by grounding, parallel connection or inert gas protection.

**Packing and storage:**

190kg/iron drum or 950KG/IBC.

Sealed and stored in cool, dark, ventilated and dry place.

Away from fire and heat. The storage temperature should be not higher than 30°C.

Don't mixed storage with oxidants, acids and alkalis. The storage site should be equipped with appropriate types and quantities of fire-fighting equipments.



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Prohibit the use of the mechanical equipments and tools that are easy to produce spark in the operation of the product.

Handle gently to avoid spillage caused by container damage.



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## ***SECTION 1:PRODUCT AND COMPANY IDENTIFICATION***

**Product Name:** Cosmetic SiFluid

**INCI/CTFA:** Decamethylcyclopentasiloxane (D5)

**Model Name:**NV-PC301

**Recommended use and restriction on use**

**Recommended use:** Industrial use Cosmetic ingredient

**Restrictions on use:** Not known.

### **Supplier Introduction:**

Zhejiang New Vision Chemical Material Co.LTD/Zhejiang New Vision Imp.& Exp.Co.Ltd

Address:14F Pacific Plaza No.555 Jingjia Road,Ningbo,China 315040

Zip:318000

**Emergency Tel and Fax:**Tel:86-576-88507506

**Email:**info@chinanewvision.com

## ***SECTION 2:HAZARDS IDENTIFICATION***

**Classification of the substance or mixture**

Flammable liquids - Category 4 - H227

### **Label elements**

**Signal word:** WARNING

### **Hazard statements**

H227 :Combustible liquid.

### **Precautionary statements**

P210 :Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P280 :Wear protective gloves/ eye protection/ face protection.

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.

P501 :Dispose of contents/ container to an approved waste disposal plant.

### **Other hazards**

No data available

## ***SECTION 3:COMPOSITION/INFORMATION ON INGREDIENTS***

**Substance/Mixture :** Substance

**Components:** Decamethylcyclopentasiloxane

**Concentration:** ≥99%



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**Substances Composition Comments:** Flam. Liq. - 4 - H227

## ***SECTION 4:FIRST AID MEASURES***

### **Description of first aid measures**

#### **General advice:**

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air and keep comfortable for breathing; consult a physician.

**Skin contact:** Wash off with plenty of water.

**Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**Ingestion:** Rinse mouth with water. No emergency medical treatment necessary.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## ***SECTION 5:FIRE-FIGHTING MEASURES***

### **Extinguishing media**

**Suitable extinguishing media:** Alcohol-resistant foam. Dry sand. Dry chemical.

**Unsuitable extinguishing media:** High volume water jet. Do not use direct water stream..

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

**Hazardous combustion products:** Silicon oxides. Carbon oxides.

**Unusual Fire and Explosion Hazards:** Flash back possible over considerable distance..

Exposure to combustion products may be a hazard to health.. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.. Fire burns more vigorously than would be expected.. Vapours may form explosive mixtures with air..

### **Advice for firefighters**

**Fire Fighting Procedures:** Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Use water spray to cool fire exposed containers and fire



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affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire..

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

**Special protective equipment for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

## ***SECTION 6:ACCIDENTAL RELEASE MEASURES***

**Personal precautions, protective equipment and emergency procedures:** Remove all sources of ignition. Follow safe handling advice and personal protective equipment recommendations.

**Environmental precautions:** Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up:** Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur.

See sections: 7, 8, 11, 12 and 13

## ***SECTION 7:HANDLING AND STORAGE***

**Precautions for safe handling:** Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.

Use with local exhaust ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**Conditions for safe storage:** Keep in properly labelled containers. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

**Do not store with the following product types:** Strong oxidizing agents. Explosives. Gases.



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Unsuitable materials for containers: None known.

## ***SECTION 8:EXPOSURE CONTROLS / PERSONAL PROTECTION***

### **Control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component: Decamethylcyclopentasiloxane

Regulation:US WEEL

Type of listing:TWA

Value :10 ppm

### **Exposure controls**

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### **Individual protection measures**

**Eye/face protection:** Use safety glasses (with side shields).

### **Skin protection**

**Hand protection:** Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

**Other protection:** No precautions other than clean body-covering clothing should be needed.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge.

## ***SECTION 9:PHYSICAL AND CHEMICAL PROPERTIES***

Physical state :liquid

Color :colourless

Odor: none

Odor Threshold :No data available



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pH :No data available  
Melting point/range :No data available  
Freezing point :No data available  
Boiling point (760 mmHg) :211 °C  
Flash point :closed cup 77 °C  
Evaporation Rate (Butyl Acetate = 1) :No data available  
Flammability (solid, gas) :Not applicable  
Flammability (liquids) :Not applicable  
Lower explosion limit :No data available  
Upper explosion limit :No data available  
Vapor Pressure :No data available  
Relative Vapor Density (air = 1) :No data available  
Relative Density (water = 1) :0,95  
Water solubility :No data available  
Partition coefficient: n<sub>1</sub> octanol/water :No data available  
Auto-ignition temperature :No data available  
Decomposition temperature :No data available  
Kinematic Viscosity :3,8 cSt at 25 °C  
Explosive properties :Not explosive  
Oxidizing properties :The substance or mixture is not classified as oxidizing.  
Molecular weight :No data available  
Particle size :Not applicable  
NOTE: The physical data presented above are typical values and should not be construed as a specification.

### ***SECTION 10:STABILITY AND REACTIVITY***

**Reactivity:** Not classified as a reactivity hazard.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Can react with strong oxidizing agents. Vapours may form explosive mixture with air. Combustible liquid.

**Conditions to avoid:** Heat, flames and sparks.

**Incompatible materials:** Avoid contact with oxidizing materials.

**Hazardous decomposition products:** Decomposition products can include and are not limited to: Formaldehyde.

### ***SECTION 11:TOXICOLOGICAL INFORMATION***

Toxicological information appears in this section when such data is available.

**Information on likely routes of exposure**

Inhalation, Eye contact, Skin contact, Ingestion.





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**Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)**

## **Acute oral toxicity**

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

Based on testing for product(s) in this family of materials: LD50, Rat, > 5 000 mg/kg Estimated.

## **Information for components:**

### **Decamethylcyclopentasiloxane**

LD50, Rat, male and female, > 24 134 mg/kg

## **Acute dermal toxicity**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on testing for product(s) in this family of materials: LD50, Rabbit, > 2 000 mg/kg Estimated.

## **Information for components:**

### **Decamethylcyclopentasiloxane**

LD50, Rabbit, male and female, > 2 000 mg/kg No deaths occurred at this concentration.

## **Acute inhalation toxicity**

No adverse effects are anticipated from inhalation. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

## **Information for components:**

### **Decamethylcyclopentasiloxane**

LC50, Rat, male and female, 4 Hour, dust/mist, 8,67 mg/l

## **Skin corrosion/irritation**

Based on testing for product(s) in this family of materials: Prolonged contact is essentially nonirritating to skin.

## **Information for components:**

### **Decamethylcyclopentasiloxane**

Prolonged contact is essentially nonirritating to skin.

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

Based on testing for product(s) in this family of materials: May cause slight temporary eye irritation.

## **Information for components:**

### **Decamethylcyclopentasiloxane**

Essentially nonirritating to eyes.



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## **Sensitization**

For skin sensitization:

Based on testing for product(s) in this family of materials: Did not cause allergic skin reactions when tested in humans.

For respiratory sensitization: No relevant data found.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization: No relevant data found.

## **Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

## **Aspiration Hazard**

Based on available information, aspiration hazard could not be determined.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

Based on physical properties, not likely to be an aspiration hazard.

## **Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)**

### **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data for the component(s), repeated exposures are not anticipated to cause significant adverse effects.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

## **Carcinogenicity**

Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals.

This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

### **Information for components:**



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## **Decamethylcyclopentasiloxane**

Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

## **Teratogenicity**

Contains component(s) which did not cause birth defects or any other fetal effects in lab animals.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

Did not cause birth defects or any other fetal effects in laboratory animals.

## **Reproductive toxicity**

Contains component(s) which did not interfere with reproduction in animal studies.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

In animal studies, did not interfere with reproduction.

## **Mutagenicity**

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity studies in animals were negative for component(s) tested.

### **Information for components:**

#### **Decamethylcyclopentasiloxane**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

## ***SECTION 12: ECOLOGICAL INFORMATION***

Ecotoxicological information appears in this section when such data is available.

### **Toxicity**

#### **Decamethylcyclopentasiloxane**

##### **Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

No toxicity at the limit of solubility

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, > 16 µg/l, OECD Test Guideline 204 or Equivalent

##### **Acute toxicity to aquatic invertebrates**

No toxicity at the limit of solubility

EC50, *Daphnia magna*, 48 Hour, > 2,9 mg/l, OECD Test Guideline 202 or Equivalent

##### **Acute toxicity to algae/aquatic plants**

No toxicity at the limit of solubility



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ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate, > 0,012 mg/l

No toxicity at the limit of solubility

NOEC, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate, 0,012 mg/l

## Chronic toxicity to fish

No toxicity at the limit of solubility

LC50, Oncorhynchus mykiss (rainbow trout), 14 d, > 16 mg/l

No toxicity at the limit of solubility

NOEC, Oncorhynchus mykiss (rainbow trout), 45 d, >= 0,017 mg/l

No toxicity at the limit of solubility

NOEC, Oncorhynchus mykiss (rainbow trout), 90 d, >= 0,014 mg/l

## Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna, 21 d, 0,015 mg/l

## Toxicity to soil-dwelling organisms

This product does not have any known adverse effect on the soil organisms tested.

NOEC, Eisenia fetida (earthworms), >= 76 mg/kg

## Persistence and degradability

### Decamethylcyclopentasiloxane

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

**Biodegradation:** 0,14 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 310

### Photodegradation

**Test Type:** Half-life (indirect photolysis)

**Sensitization:** OH radicals

**Atmospheric half-life:** 7,15 d

**Method:** Estimated.

## Bioaccumulative potential

### Decamethylcyclopentasiloxane

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**Partition coefficient: n-octanol/water(log Pow):** 5,2 Measured

**Bioconcentration factor (BCF):** 2 010 Fish Estimated.

## Mobility in soil

### Decamethylcyclopentasiloxane

Expected to be relatively immobile in soil (Koc > 5000).



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**Partition coefficient (Koc):** > 5000 Estimated.

## Results of PBT and vPvB assessment

### Decamethylcyclopentasiloxane

Decamethylcyclopentasiloxane (D5) meets the current REACH Annex XIII criteria for vPvB. However, D5 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D5 is not biomagnifying in aquatic and terrestrial food webs. D5 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D5 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms. Based on an independent scientific panel of experts, the Canadian Minister of the Environment has concluded that "D5 is not entering the environment in a quantity or concentration or under conditions that have or may have an immediate or long-term harmful effect on the environment or its biological diversity, or that constitute or may constitute a danger to the environment on which life depends".

## Other adverse effects

### Decamethylcyclopentasiloxane

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## ***SECTION 13: DISPOSAL CONSIDERATIONS***

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

**Treatment and disposal methods of used packaging:** Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

## ***SECTION 14: TRANSPORT INFORMATION***



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**Classification for ROAD and Rail transport (ADR/RID):**Not regulated for transport

**Classification for SEA transport (IMO-IMDG):** Not regulated for transport

**Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code**  
Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):** Not regulated for transport

## ***SECTION 15:REGULATORY INFORMATION***

Classification and labeling have been performed according to regulations

## ***SECTION 16:OTHER INFORMATION***

### **Disclaimer**

For R&D use only. Not for drug, household or other uses.

### **Warranty**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any shall not be held liable for any damage resulting from handling or from contact with the above product.

SDS Date:2020.08.05