

# SAFETY DATA SHEETS

According to the UN GHS revision 10

Version: 1.1  
Creation Date: July 15, 2024  
Revision Date: August 09, 2025

## SECTION 1: Identification

### 1.1 GHS Product identifier

Product name VACOR

### 1.2 Other means of identification

Product number CCNP900106

Other names Pyriminil; Pyrinuron; 1-(4-nitrophenyl)-3-(pyridin-3-ylmethyl)urea

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

Identified uses For laboratory and Industrial use only.

Uses advised against no data available

### 1.4 Supplier's details

Company CATO Research Chemicals Inc.

Address 3/F,Building B,No.179 BASIGO, Guangpu Rd East,Huangpu Dist,Guangzhou

Telephone +86-20-81960175

### 1.5 Emergency phone number

Emergency phone number +86-20-81960175

Service hours 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral

Skin irritation, Category 2

Serious eye damage, Category 1

Specific target organ toxicity – single exposure, Category 3

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)

H302 Harmful if swallowed

H315 Causes skin irritation

H318 Causes serious eye damage

H335 May cause respiratory irritation

Precautionary statement(s)

Prevention

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 Use only outdoors or in a well-ventilated area.

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Response</b> | <p>P301+P317 IF SWALLOWED: Get medical help.</p> <p>P330 Rinse mouth.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water/...</p> <p>P321 Specific treatment (see ... on this label).</p> <p>P332+P317 If skin irritation occurs: Get medical help.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P317 Get medical help.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P319 Get medical help if you feel unwell.</p> |
| <b>Storage</b>  | <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Disposal</b> | <p>P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

### 2.3 Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Chemical name | Common names and synonyms                 | CAS number | EC number | Concentration |
|---------------|-------------------------------------------|------------|-----------|---------------|
| VACOR         | 1-(4-nitrophenyl)-3-(3-pyridylmethyl)urea | 53558-25-1 | 258-626-7 | ≈ 99%         |

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

#### Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

#### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

#### Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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

This chemical may cause death by cardiovascular collapse and respiratory failure. It may cause diabetes. Also it affects the central nervous system. Human survivors regularly develop an insulin-deficient, ketosis-prone form of diabetes mellitus. (EPA, 1998)

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Basic treatment: Establish a patent airway. Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilations if needed. Administer oxygen by nonrebreather mask at 10 to 15 L/min. Monitor for pulmonary edema and treat if necessary. Monitor for shock and treat if necessary. Anticipate seizures and treat if necessary. For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with normal saline during transport. Do not use emetics. For ingestion, rinse mouth and administer 5 ml/kg up to 200 ml of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool. Cover skin burns with dry sterile dressings after decontamination. Poison A and B

## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

This compound is a solid pesticide. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Ventilate closed spaces before entering them. Wear positive pressure breathing apparatus and special protective clothing. Remove and isolate contaminated clothing at the site. This compound is a solid pesticide. Small fires: dry chemical, carbon dioxide, water spray, or foam. Large fires: water spray, fog, or foam. Move container from fire area if you can do so without risk. Fight fire from maximum distance. Dike fire control water for later disposal; do not scatter the material. (EPA, 1998)

### 5.2 Specific hazards arising from the chemical

Excerpt from ERG Guide 151 [Substances - Toxic (Non-combustible)]: Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Containers may explode when heated. Runoff may pollute waterways. (ERG, 2016)

### 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

## SECTION 6: Accidental release measures

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

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

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

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure limit values

no data available

#### Biological limit values

no data available

### 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### Skin protection

Wear fire/flammable resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. 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.

#### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Thermal hazards

no data available

## SECTION 9: Physical and chemical properties and safety characteristics

|                                                          |                                                                                                                                              |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state                                           | Pyriminil is a yellow, resembling corn meal. Used as a single-dose, acute rodenticide. Not registered as a pesticide in the U.S. (EPA, 1998) |
| Colour                                                   | Yellow, resembles cornmeal or yellow-green powder                                                                                            |
| Odour                                                    | no data available                                                                                                                            |
| Melting point/freezing point                             | 223-225°C (decomp)                                                                                                                           |
| Boiling point or initial boiling point and boiling range | 473.7°C at 760 mmHg                                                                                                                          |
| Flammability                                             | no data available                                                                                                                            |
| Lower and upper explosion limit/flammability limit       | no data available                                                                                                                            |
| Flash point                                              | 240.3°C                                                                                                                                      |
| Auto-ignition temperature                                | no data available                                                                                                                            |
| Decomposition temperature                                | no data available                                                                                                                            |

|                                       |                                                     |
|---------------------------------------|-----------------------------------------------------|
| pH                                    | no data available                                   |
| Kinematic viscosity                   | no data available                                   |
| Solubility                            | >40.8 [ug/mL]                                       |
| Partition coefficient n-octanol/water | log Kow = 2.09 /Estimated/                          |
| Vapour pressure                       | 3.39X10 <sup>-9</sup> mm Hg at 25 deg C /Estimated/ |
| Density and/or relative density       | 1.381 g/cm <sup>3</sup>                             |
| Relative vapour density               | no data available                                   |
| Particle characteristics              | no data available                                   |

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No rapid reaction with air. No rapid reaction with water.

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

An organic compound with a nitroaromatic component as well as a pyridine ring and an amide linker. Amines are chemical bases. They neutralize acids to form salts plus water. These acid-base reactions are exothermic. The amount of heat that is evolved per mole of amine in a neutralization is largely independent of the strength of the amine as a base. Amines may be incompatible with isocyanates, halogenated organics, peroxides, phenols (acidic), epoxides, anhydrides, and acid halides. Flammable gaseous hydrogen is generated by amines in combination with strong reducing agents, such as hydrides. Organic amides/imides react with azo and diazo compounds to generate toxic gases. Flammable gases are formed by the reaction of organic amides/imides with strong reducing agents. Amides are very weak bases (weaker than water). Imides are less basic yet and in fact react with strong bases to form salts. That is, they can react as acids. Mixing amides with dehydrating agents such as P<sub>2</sub>O<sub>5</sub> or SOCl<sub>2</sub> generates the corresponding nitrile. The combustion of these compounds generates mixed oxides of nitrogen (NO<sub>x</sub>).

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

When heated to decomposition it emits toxic fumes of /nitrogen oxides/.

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## SECTION 11: Toxicological information

#### Acute toxicity

- Oral: LD50 Rat oral 6.2 mg/kg
- Inhalation: no data available
- Dermal: no data available

#### Skin corrosion/irritation

no data available

#### Serious eye damage/irritation

no data available

#### Respiratory or skin sensitization

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

no data available

#### Reproductive toxicity

no data available

#### STOT-single exposure

no data available

#### STOT-repeated exposure

no data available

#### Aspiration hazard

no data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

An estimated BCF of 8 was calculated for pyriminil(SRC), using an estimated log Kow of 2.09(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

### 12.4 Mobility in soil

Using a structure estimation method based on molecular connectivity indices(1), the Koc for pyriminil can be estimated to be 1,990(SRC). According to a classification scheme(2), this estimated Koc value suggests that pyriminil is expected to have low mobility in soil. The estimated pKa values of pyriminil are 3.5 for the conjugate acid of the pyridine ring nitrogen and 7.6 for the benzyl amide acting as an acid(3). The pKa of 3.5 indicates that the pyridine nitrogen will not be ionized at environmental pHs(4). However, the pKa of 7.6 indicates that the benzyl amide group will partially exist in anion form in the environment and anions generally do not adsorb more strongly to organic carbon and clay than their neutral counterparts(4).

### 12.5 Other adverse effects

no data available

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## SECTION 13: Disposal considerations

### 13.1 Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## SECTION 14: Transport information

### 14.1 UN Number

|                                                     |                                                  |                                                  |
|-----------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| ADR/RID: UN2588 (For reference only, please check.) | IMDG: UN2588 (For reference only, please check.) | IATA: UN2588 (For reference only, please check.) |
|-----------------------------------------------------|--------------------------------------------------|--------------------------------------------------|

### 14.2 UN Proper Shipping Name

|                                                                              |                                                                           |                                                                           |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|
| ADR/RID: PESTICIDE, SOLID, TOXIC, N.O.S. (For reference only, please check.) | IMDG: PESTICIDE, SOLID, TOXIC, N.O.S. (For reference only, please check.) | IATA: PESTICIDE, SOLID, TOXIC, N.O.S. (For reference only, please check.) |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|

### 14.3 Transport hazard class(es)

|                                                  |                                               |                                               |
|--------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| ADR/RID: 6.1 (For reference only, please check.) | IMDG: 6.1 (For reference only, please check.) | IATA: 6.1 (For reference only, please check.) |
|--------------------------------------------------|-----------------------------------------------|-----------------------------------------------|

### 14.4 Packing group, if applicable

ADR/RID: I (For reference only, please check.) IMDG: I (For reference only, please check.) IATA: I (For reference only, please check.)

### 14.5 Environmental hazards

|             |          |          |
|-------------|----------|----------|
| ADR/RID: No | IMDG: No | IATA: No |
|-------------|----------|----------|

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to IMO instruments

no data available

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

| Chemical name                                                            | Common names and synonyms                 | CAS number | EC number   |
|--------------------------------------------------------------------------|-------------------------------------------|------------|-------------|
| 1-(4-nitrophenyl)-3-(3-pyridylmethyl)urea                                | 1-(4-nitrophenyl)-3-(3-pyridylmethyl)urea | 53558-25-1 | 258-626-7   |
| European Inventory of Existing Commercial Chemical Substances (EINECS)   |                                           |            | Listed.     |
| EC Inventory                                                             |                                           |            | Listed.     |
| United States Toxic Substances Control Act (TSCA) Inventory              |                                           |            | Listed.     |
| China Catalog of Hazardous chemicals 2015                                |                                           |            | Listed.     |
| New Zealand Inventory of Chemicals (NZIoC)                               |                                           |            | Not Listed. |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)       |                                           |            | Not Listed. |
| Vietnam National Chemical Inventory                                      |                                           |            | Not Listed. |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) |                                           |            | Listed.     |
| Korea Existing Chemicals List (KECL)                                     |                                           |            | Listed.     |

## SECTION 16: Other information

### Information on revision

Creation Date July 15, 2024  
Revision Date August 09, 2025

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

Any questions regarding this SDS, Please send your inquiry to [info@cato-chem.com](mailto:info@cato-chem.com)

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