

## 1. Chemical product and company identification

**Substance name** : OLFINE PD-301A

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

Recommended use : Additive

Restrictions on use : General industrial use

### Company information

Nissin Chemical Industry Co., Ltd.

100-0004 Japan

Shin Otemachi Building, 2-2-1 Otemachi, Chiyoda-ku, Tokyo

T +81-3-6262-0276 - F +81-3-6262-0277

## 2. Hazards identification

### GHS classification

|                  |                                                                          |                             |
|------------------|--------------------------------------------------------------------------|-----------------------------|
| Physical hazards | Explosives                                                               | classification not possible |
|                  | Flammable gases                                                          | No classification           |
|                  | Aerosol                                                                  | classification not possible |
|                  | Oxidizing gases                                                          | No classification           |
|                  | Gases under pressure                                                     | No classification           |
|                  | Flammable liquids                                                        | No classification           |
|                  | Flammable solids                                                         | No classification           |
|                  | Self-reactive substances and mixtures                                    | classification not possible |
|                  | Pyrophoric liquids                                                       | classification not possible |
|                  | Pyrophoric solids                                                        | No classification           |
|                  | Self-heating substances and mixtures                                     | classification not possible |
|                  | Substances and mixtures which in contact with water emit flammable gases | classification not possible |
|                  | Oxidizing liquids                                                        | classification not possible |
|                  | Oxidizing solids                                                         | No classification           |
|                  | Organic peroxides                                                        | classification not possible |
|                  | Corrosive to metals                                                      | classification not possible |
|                  | Desensitized explosives                                                  | classification not possible |
| Health hazards   | Acute toxicity (oral)                                                    | classification not possible |
|                  | Acute toxicity (dermal)                                                  | classification not possible |

|                       |                                                           |                             |
|-----------------------|-----------------------------------------------------------|-----------------------------|
| Environmental hazards | Acute toxicity (inhalation:gas)                           | No classification           |
|                       | Acute toxicity (inhalation:vapours)                       | No classification           |
|                       | Acute toxicity (inhalation:dust/mist)                     | classification not possible |
|                       | Skin corrosion/irritation                                 | Category 2                  |
|                       | Serious eye damage/eye irritation                         | Category 1                  |
|                       | Respiratory sensitization                                 | classification not possible |
|                       | Skin sensitization                                        | Category 1                  |
|                       | Germ cell mutagenicity                                    | classification not possible |
|                       | Carcinogenicity                                           | classification not possible |
|                       | Reproductive toxicity                                     | Category 2                  |
|                       | Specific target organ toxicity (single exposure)          | Category 2                  |
|                       | Specific target organ toxicity (repeated exposure)        | Category 2                  |
|                       | Aspiration hazard                                         | classification not possible |
|                       | Hazardous to the aquatic environment, short-term (acute)  | Category 3                  |
|                       | Hazardous to the aquatic environment, long-term (chronic) | Category 3                  |
|                       | Hazardous to the ozone layer                              | classification not possible |

Hazard pictograms



**GHS Signal word** : Danger

**Hazard statements** :

- Causes skin irritation. (H315)
- May cause an allergic skin reaction. (H317)
- Causes serious eye damage. (H318)
- Suspected of damaging fertility or the unborn child. (H361)
- May cause damage to organs. (H371)
- May cause damage to organs through prolonged or repeated exposure. (H373)
- Harmful to aquatic life with long lasting effects. (H412)

**Precautionary statements**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prevention | <p>: Obtain special instructions before use. (P201)</p> <p>Do not handle until all safety precautions have been read and understood. (P202)</p> <p>Do not breathe dust, fume, gas, mist, vapours, spray. (P260)</p> <p>Wash hands, forearms and face thoroughly after handling. (P264)</p> <p>Do not eat, drink or smoke when using this product. (P270)</p> <p>Contaminated work clothing should not be allowed out of the workplace. (P272)</p> <p>Avoid release to the environment. (P273)</p> <p>Wear protective gloves, protective clothing, eye protection, face protection. (P280)</p>                                                                               |
| Response   | <p>: IF ON SKIN: Wash with plenty of soap and water. (P302+P352)</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)</p> <p>IF exposed or concerned: Call a doctor. (P308+P311)</p> <p>IF exposed or concerned: Get medical advice/attention. (P308+P313)</p> <p>Immediately call a doctor. (P310)</p> <p>Get medical advice/attention if you feel unwell. (P314)</p> <p>Specific treatment (P321)</p> <p>If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)</p> <p>Take off contaminated clothing and wash it before reuse. (P362+P364)</p> |
| Storage    | : Store locked up. (P405)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Disposal   | : Dispose of contents/container in accordance with local/regional/national/international regulations. (P501)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

### 3. Composition/information on ingredients

**Distinction of substance or mixture** : Mixture

**Generic name** : Surfactant composition

| Name             | Concentration (%) | Reference number in the gazette list |                   | CAS-No.     |
|------------------|-------------------|--------------------------------------|-------------------|-------------|
|                  |                   | CSSL No                              | ISHL No           |             |
| Surfactant A     | 1 - 10            | Undisclosed                          | Undisclosed       | Undisclosed |
| Surfactant B     | 1 - 10            | Undisclosed                          | Undisclosed       | Undisclosed |
| Surfactant C     | 10 - 20           | Undisclosed                          | Undisclosed       | Undisclosed |
| Butyl cellosolve | 4.4               | (7)-97;(2)-407                       | Existing Chemical | 111-76-2    |

|       |         |   |           |           |
|-------|---------|---|-----------|-----------|
|       |         |   | Substance |           |
| Water | 60 - 70 | - | -         | 7732-18-5 |

## 4. First aid measures

### First aid measures

- First-aid measures general** : If you feel unwell, seek medical advice (show the label where possible). Move out of dangerous area. Take off contaminated clothing and shoes immediately. Never give anything by mouth to an unconscious person.
- First-aid measures after inhalation** : Remove the sufferers to fresh air places immediately. If breathing has stopped or is labored, give artificial respiration, and get medical advices.
- First-aid measures after skin contact** : Take off contaminated clothes, shoes and socks. And wash sticking parts off with soap and plenty of water. If the external changes are observed or the symptoms such as irritation or itchy appears, get medical advices immediately.
- First-aid measures after eye contact** : Rinse immediately inner side of eyelid with plenty of water more than 20 minutes. Remove the contact lenses if possible. Get medical advices.  
If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion** : Rinse mouth thoroughly with water and get medical attention immediately.  
Never give anything through mouth to a patient if he is unconscious. Turn a patient's head to the side for preventing suffocation by vomit.

## 5. Fire fighting measures

- Suitable extinguishing media** : Dry chemical, Fire foam, Carbon dioxide (CO<sub>2</sub>), Water mist.

- Unsuitable extinguishing media** : Nothing in particular

### Fire hazard

- Fire hazard** : Under fire conditions, hazardous fumes or gas may be present.
- Hazardous decomposition products in case of fire** : The hazardous gasses such as carbon mono- and di-oxide and aldehyde group are generated at the Product's combustion.

### Firefighting instructions

- Firefighting instructions** : Cut off ignition sources to a fire origin and fight a fire employing a suitable fire extinguishing agent.  
Cool by water spray around the fire site to prevent the fire extension.

### Personal protection (Emergency response)

- Personal protection (Emergency response) : As gasses such as carbon dioxide, carbon monoxide, smoke are generated by high temperature at fire, wear a self-contained breathing apparatus, etc.
- Protection during firefighting : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
- Other information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. 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.

## 6. Accidental release measures

### Personal Precautions, Protective Equipment and Emergency Procedures

- General measures : Clear off ignition sources and work from windward.  
Wear suitable protective goggles, boots, gloves, body suits to avoid contact with droplet, etc and inhalation of mist, gas, etc.

### For emergency responders

- Protective equipment : Wear suitable protective tools such as goggles, boots, gloves, body suits and a self-contained breathing apparatus according to circumstances to avoid inhalation of and direct contact with materials in question.
- Emergency procedures : Clear off all of ignition sources immediately.  
Work from windward.  
Stop release.

### Environmental precautions

- Environmental precautions : Take care that the released Products do not inflow into the water-courses nor dirty water flows out to the environment.

### Methods and Equipment for Containment and Cleaning up

- For containment : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.
- Methods for cleaning up : When the releasing materials are small, cover with dry sand, dirt, sawdust and/or the like, rake up with shovels or brooms and recover into the containers being stoppered tightly.  
When the releasing materials are large, vacuum and recover with

- a pump, etc.
- Clean up the surroundings of the releasing area with water after recovery and recover the contaminated water as well.
- Prevention Measures for Secondary Accidents : Remove immediately all ignition source and prepare fire extinguish agents. Use safe tools which do not spark.

## 7. Handling and storage

### Handling

- Technical measures : Emergency showers and eye wash stations should be readily accessible.
- Precautions for safe handling : Comply with practice rules established by the Government.  
As the Product has fear of precipitating or solidifying under low temperature(not exceeding 5°C), the Product is applied after warming, melting and stirring well in the case.
- Prevents handling of incompatible substances or mixtures : Wear suitable personal protecting tools, if there are dangers of inhalation of vapor and mist or contact to skin or eye(s).
- Local and general ventilation : Handle the Product at the area installing local exhaust or whole ventilation facilities.

### Storage

- Storage conditions : Store with a tight stopper at cool and dark places.
- Material used in packaging/containers : Keep oil tins dry because oil tins may form rust by wet with water and so on.
- Technical measures : Store the Product at a well ventilated place where is isolated from thermal sources and strong oxidizers.
- Incompatible materials : Strong oxidizers (perchlorates, nitrates, peroxides). Reactive metals. (sodium, calcium, zinc, etc.). Dehydrating agent.

## 8. Exposure controls / Personal protection equipment

| Butyl cellosolve                           |                                                                                                                |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| USA - ACGIH - Occupational Exposure Limits |                                                                                                                |
| ACGIH OEL TWA                              | 20 ppm                                                                                                         |
| ACGIH chemical category                    | Confirmed Animal Carcinogen with Unknown Relevance to Humans                                                   |
| USA - ACGIH - Biological Exposure Indices  |                                                                                                                |
| BEI                                        | 200 mg/g creatinine Parameter: Butoxyacetic acid with hydrolysis - Medium: urine - Sampling time: end of shift |
| Japan - Occupational Exposure Limits       |                                                                                                                |
| Japan administration level                 | 25ppm                                                                                                          |
| Exposure limits (JSOH)                     | [Ceiling]20ppm(97mg/m <sup>3</sup> )(skin)                                                                     |
| Exposure limits (ACGIH)                    | TWA 20 ppm, STEL -                                                                                             |

Appropriate engineering controls : Install sufficient general ventilators and local exhaust equipments, Express the place clearly where safety shower(s) and hand and eye washer(s) are equipped.

**Protective equipment**

Materials for protective clothing : Use personal protective equipment against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective equipment with the manufacturer.

Respiratory protection : Use an air respirator at an emergency, It is needless under normal conditions at well ventilated place.

Hand protection : Wear protective gloves.(Neoprene Nitrile rubber)

Eye protection : goggles style protective glasses

Skin and body protection : protective clothing, Choose appropriate protective clothes according to the concentration of the dangerous substance and the work circumstance.

Environmental exposure controls : Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**9. Physical and chemical properties**

Physical state : Liquid

Colour : Brown

Odour : characteristic odor

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : None (Cleveland open-cup test)

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability : No data available

Vapour pressure : No data available

Relative vapour density at 20°C : No data available

---

|                                                 |   |                   |
|-------------------------------------------------|---|-------------------|
| Relative density                                | : | No data available |
| Density                                         | : | No data available |
| Relative gas density                            | : | No data available |
| Solubility                                      | : | No data available |
| Partition coefficient n-octanol/water (Log Pow) | : | No data available |
| Explosive limits (vol %)                        | : | No data available |
| Explosive limits (g/m <sup>3</sup> )            | : | No data available |
| Viscosity, kinematic                            | : | No data available |
| Minimum ignition energy                         | : | No data available |
| Particle size                                   | : | No data available |

## 10. Stability and reactivity

|                                    |   |                                                                                                                                                                                                                   |
|------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | : | No data available                                                                                                                                                                                                 |
| Chemical stability                 | : | Prevent high temperature atmosphere, by which the degradation of the product is accelerated.                                                                                                                      |
| Possibility of hazardous reactions | : | In case of mix and contact with strong oxidizer, it may cause hazards such as fire or explosion.                                                                                                                  |
| Conditions to avoid                | : | Heat. Fire                                                                                                                                                                                                        |
| Incompatible materials             | : | Reactive metals. (sodium, calcium, zinc, etc.). Strong oxidizer (perchlorates, nitrates, peroxides etc.). Peroxides. Dehydrating agents. Materials reacted with hydroxyl compounds.                               |
| Hazardous decomposition products   | : | The hazardous gasses such as carbon mono- and di-oxide and aldehyde group are generated at the Product's combustion. Heating above 65 C in the presence of strong base can produce flammable hydrocarbon residue. |

## 11. Toxicological information

|                                           |   |                |                   |
|-------------------------------------------|---|----------------|-------------------|
| Acute toxicity (oral)                     | : | (as a product) | No data available |
| Acute toxicity (dermal)                   | : | (as a product) | No data available |
| Acute toxicity (gas) - Description        | : | (as a product) | No data available |
| Acute toxicity (vapour) - Description     | : | (as a product) | No data available |
| Acute toxicity (dust, mist) - Description | : | (as a product) | No data available |
| Acute toxicity (mist) - Description       | : | (as a product) | No data available |

|                               |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin corrosion/irritation     | : (as a product) | There are no available data about this products. There contain skin irritating materials belonging to the following Category.Category 2: Surfactant B (1-10%) 2-Butoxyethanol (4.4%) Concentration limits of Category 2 is $\geq 10\%$ . So, this product is correspond to Skin corrosion / irritation Category 2 of GHS.                                                                                                                              |
| Serious eye damage/irritation | : (as a product) | There are no available data about this product. There contain eye irritating materials belonging to the following Category. Category 1: Surfactant A (1-10%) Concentration limits of Category 1 is $\geq 3\%$ . So,this product is correspond to Serious eye damage /eye irritation Category 1 of GHS.                                                                                                                                                 |
| Respiratory sensitization     | : (as a product) | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Skin sensitization            | : (as a product) | There are no available data about this product. But, there contain Skin Sensitizer materials belonging to the following Category.Category1 :Surfactant A (1-10%) Concentration limits of Category 1 is $\geq 1.0\%$ So, this product is correspond to Skin Sensitizer Category 1 of GHS.                                                                                                                                                               |
| Germ cell mutagenicity        | : (as a product) | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Carcinogenicity               | : (as a product) | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Reproductive toxicity         | : (as a product) | There are no available data about this product. But, there contain Reproductive toxicant materials belonging to the following Category.Category2 : Butyl cellosolve(4.4%) Concentration limits of Category 2 is $\geq 3.0\%$ . So, this product is correspond to Reproductive toxicant Category 2 of GHS.                                                                                                                                              |
| STOT-single exposure          | : (as a product) | There are no available data about this product. There contain Specific target organ toxicity (single exposure) materials belonging to the following Category.Category 1: Butyl cellosolve(4.4%) Concentration limits of Category 1 is $\geq 10\%$ . But Concentration limits of Category 2 is $1.0\% \leq$ Concentration of Category 1 $< 10\%$ . So this product is correspond to Specific target organ toxicity (single exposure) Category 2 of GHS. |

|                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STOT-repeated exposure | : (as a product) | There are no available data about this product. There contain Specific target organ toxicity (repeated exposure) materials belonging to the following Category. Category 1: Butyl cellosolve(4.4%) Concentration limits of Category 1 is $\geq 10\%$ . But Concentration limits of Category 2 is $1.0\% \leq$ Concentration of Category 1 $< 10\%$ . So this product is correspond to Specific target organ toxicity (repeated exposure) Category 2 of GHS. |
| Aspiration hazard      | : (as a product) | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## 12. Ecological information

### Ecotoxicity

|                                                           |                                                                                              |                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ecotoxicity                                               | : (as a product)                                                                             | No data available                                                                                                                                                                                                                                                                                                                      |
| Hazardous to the aquatic environment, short-term (acute)  | : (as a product)                                                                             | There are no available data about this product. There contain Hazardous to the aquatic environment (acute) materials belonging to the following Category. Category 2: Surfactant B (1-10%). Apply summation method, this product is correspond to Hazardous to the aquatic environment (acute) Category 3 of GHS.                      |
| Hazardous to the aquatic environment, long-term (chronic) | : (as a product)                                                                             | There are no available data about this product. There contain Hazardous to the aquatic environment (Chronic) materials belonging to the following Category. Category 2: Surfactant B (1-10%). Apply summation method of GHS 4.1.3.5.5, this product is correspond to Hazardous to the aquatic environment (Chronic) Category 3 of GHS. |
| Other information                                         | : It should not be allowed for the product to be run into drains, water courses or the soil. |                                                                                                                                                                                                                                                                                                                                        |

### Persistence and degradability

|                               |                  |                   |
|-------------------------------|------------------|-------------------|
| Persistence and degradability | : (as a product) | No data available |
|-------------------------------|------------------|-------------------|

### Bioaccumulative potential

|                           |                  |                   |
|---------------------------|------------------|-------------------|
| Bioaccumulative potential | : (as a product) | No data available |
|---------------------------|------------------|-------------------|

Partition coefficient n-octanol/water (Log Pow) : (as a product) No data available

#### Mobility in soil

Mobility in soil : (as a product) No data available

Partition coefficient n-octanol/water (Log Pow) : (as a product) No data available

Ecology - soil : (as a product) No data available

#### Hazardous to the ozone layer

Ozone : (as a product) No data available

Other adverse effects : No additional information available

### 13. Disposal considerations

**Ecological waste information** : Farm out to professional disposal treating traders in compliance with requirements of the nation and local governments.

**Contaminated container and packaging** : Farm out disposal of the contents and packaging materials to professional disposal treating traders in compliance with requirements of the nation and local governments.  
In case of disposal of empty container, dispose after complete removal in the container.

### 14. Transport information

#### International Regulations

##### Transport by sea(IMDG)

UN-No. (IMDG) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Packing group (IMDG) : Not applicable  
Transport hazard class(es) (IMDG) : Not applicable

##### Air transport(IATA)

UN-No. (IATA) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Packing group (IATA) : Not applicable  
Transport hazard class(es) (IATA) : Not applicable

#### Regulations in Japan

Other information : No supplementary information available

## 15. Regulatory information

REACH SVHC : No SVHC substances exceeding the threshold level are contained.

## 16. Other information

Data sources : Ref. 1."Safety Data Sheet" by Raw Material Manufacturers.  
2.GHS Sixth Revised Edition. 3.NITE GHS Results of the Classification.

Other information : The Products was developed for general industries' use. When applying to specific uses, it is hoped to confirm its safety by yourselves prior to the use. The description of this SDS is based upon materials, information and data which can be procured at present. However, we do not warrant any guarantee regarding the contents, physical and chemical properties, hazards and the like.

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable