1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

Product name: SHINMYOTAN N-RED (新明丹N-レッド)
Name of company: NAKATANI & Co., Ltd
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Charge section: Environmental Products Development Group
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Recommend use of the chemical and restrictions on use: Inspection agent of a metalwork
Reference number: 300601E

2. HAZARDS IDENTIFICATION

GHS hazard class:
- Physical properties:
  - Flammable solids: Not available
  - Pyrophoric solids: Not available
  - Self-heating substances and mixtures: Not available
  - Oxidising solids: Not available
  - Substances and mixtures corrosive to metals: Not identified

Hazard classes for effects to human health:
- Acute toxicity (ingestion): Not available
- (through the skin): Not identified
- (by inhalation dust): Category 5
- Skin corrosion/irritation: Not available
- Serious eye damages/eye irritation: Not available
- Sensitization (respiratory): Not identified
- Sensitization (skin): Not identified
- Germ cell mutagenicity: Not identified
- Carcinogenicity: Not available
- Toxic to reproduction: Not available
- Effects in or via lactation: Not identified
- Specific target organ systemic toxicity from single exposure: Category 1
- Specific target organ systemic toxicity from repeated exposure: Category 1
- Aspiration toxicity: Not identified

Hazard classes for effects to the environment:
- Acute hazard: Category 1
- Chronic hazard: Category 1

Label and Package
HAZARD symbols: Health hazard, Hazardous to the aquatic environment
Hazard information

・Repeated or prolonged inhalation exposure may cause damage to the respiratory system.

・Harmful to aquatic life.

Package information

【Safety measures】

Handling: Wear protective equipment (masks, glasses, gloves) if required. Use in a well-ventilated area.

【First Aid】

@Inhalation: Fresh air, rest.

@Ingestion: Rinse mouth. Refer for medical attention.

@Eyes: First rinse with plenty of water for several minutes. If persistent irritation occurs, obtain medical attention.

@Skin: Remove contaminated clothes. Rinse and wash skin with water and soap. Call a doctor/physician if you feel unwell.

【Storage】

Well closed. Keep in the dark and cool.

【Disposal】

Perform waste processing appropriately in accordance with the law.

3. Composition/Information on Ingredients

Substance or mixture: Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Formula</th>
<th>Contents (%)</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc oxide</td>
<td>ZnO</td>
<td>40</td>
<td>1314-13-2</td>
</tr>
<tr>
<td>Petroleum hydrocarbon</td>
<td>Unspecified</td>
<td>35</td>
<td>64742-55-8</td>
</tr>
<tr>
<td>Aluminum stearate</td>
<td>C₁₈H₃₇AlO₄₁₀</td>
<td>70</td>
<td>7047-84-9</td>
</tr>
<tr>
<td>Polyoxyethylene polyoxypropylene</td>
<td>C₄H₁₀O(C₃H₆OC₂H₄O)ₓ</td>
<td>7</td>
<td>9038-95-3</td>
</tr>
<tr>
<td>Monobutylether</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insoluble disazo orange</td>
<td>C₃₄H₃₂N₆O₆</td>
<td>8</td>
<td>6505-28-8</td>
</tr>
</tbody>
</table>

4. First-Aid Measures

Inhalation: Remove the victim from the contamination immediately to fresh air. Blow your nose and gargle.

Skin: Remove contaminated clothes. Rinse and wash skin with water and soap.

Eyes: First rinse with plenty of water for several minutes. If persistent irritation occurs, obtain medical attention.

Ingestion: Rinse mouth. Refer for medical attention. Do not induce vomiting.

An expected acute symptom and a delay-related symptom: Inhalation: sore throat, headache, fever, nausea, vomiting, weakness. Symptoms may be delayed.

Ingestion: abdominal pain, diarrhea, nausea, vomiting.

The person for first aid wear a tool for protection.

Advice to physicians: Inhalation of fume may cause metal fever. The symptom which is metal fever for inhalation of fume may be delayed.

5. Fire-Fighting Measures

Extinguishing Agents: Use foam, powder, carbon dioxide, dry-chemical. No water.
Extinguishing method:
1) Cut the combustion source of the fire.
2) Use a powder or carbon dioxide fire extinguisher for fires at an early stage.
3) It is effective to use a foam fire extinguisher to cut off air in a large-scale fire.
4) Spray water on facilities around fire to cool them down.
5) Combat fire from a safety position and from windward.
6) Be sure to wear Protective clothing.
7) Forbid unauthorized people to enter the periphery of the fire source.

Unsuitable extinguishing media: Water in jet. Use of Halon extinguishers should be avoided for environmental reasons.

Hazard statement; By a fire, it can occur with pungency or toxic Hume

Special protective equipment and precautions for fire fighters: Fire fighters should wear boots, overalls, gloves, eye and face protection and breathing apparatus.

6. ACCIDENTAL RELEASE MEASURE
1) Wearing protective equipment to prevent contact to eyes and the skin (designated in Section 8)
2) Forbid unauthorized people to enter the periphery of spill area.
3) Avoid that the spill does not flow out into sewers, rivers, etc. to cause secondary disasters or environment contaminations.
4) Collect in the covered vacant container with sand or waste, and dispose in conformity with a law.

7. HANDLING AND STORAGE
Handling; Use appropriate personal protective equipment as specified in Section 8. Handle in a well ventilated area. Do not absorb and swallow it. Inhalation of fume or mine dust may cause metal fever. Wash hands after work.

Storage; After use, stopper tightly to prevent the introduction of dust, water, etc. Avoid direct sunlight. Never put this product close to fire or heat sources. Well closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Exposure guidelines; Contains no volatile ingredients that require exposure control.
Exposure limits; Not established.
Engineering controls; Especially under the high heat process, toxic fumes are formed. Handle in a well ventilated area.
Personal protective equipment; Eyes and face; Wear chemical splash goggles and face shield when eyes and face contact is possible due to spraying of material. Skin; Where contact is likely, wear neoprene chemical resistant glove, a chemical suit, rubber boots, chemical safety goggles and a face shield. Respiratory; Always wear respiratory protective equipment when vapor or mists may exceed applicable concentration limits.
Work hygiene; Do not eating and drinking or smoking while using this material. After working, wash hands and gargle.

9. PHYSICAL AND CHEMICAL PROPERTIES
Physical State; Paste (color: red)
Odor; Slight characteristic odor
pH; Not available
Bolling Point; Not available
10. PHYSICAL & CHEMICAL PROPERTIES
Flash point;                 > 230℃
Freezing Point;              Not available
Vapor Pressure ;             Not available
Vapor Density ;              Not available
Density ;               1.2 (20℃)
Solubility in Water ;          Negligible
Solubility in other solvent :    Soluble in oil
Evaporation Rate:             Not available

11. STABILITY AND REACTIVITY
Stability ;                       Stable
Conditions and materials to avoid:  Extremes of temperature and direct sunlight.
Hazardous decomposition product ;  Not available.

12. TOXICOLOGICAL INFORMATION
Acute toxicity
Oral LD₅₀ ; 2500mg/kg (rat) by ZnO
Inhalation LD₅₀ ; Not Available
Corrosive / pungency
Skin :               Not identified ( no corrosive in examinational rat)
This material is not corrosive to the skin.
Eye ;                 Not identified ( no corrosive in examinational rat)
This material is not corrosive to the skin.
Sensitization :           No information available
Reproductive effects ;    No information available
Germ cell mutagenicity :  No information available
Carcinogenicity ;         No available
Specific target organ systemic toxicity from single exposure;   CATEGORY  1
Inhalation of fume may cause metal fever by Zinc oxide
Specific target organ systemic toxicity from repeated exposure; CATEGORY  1
Zinc oxide may cause an obstacle to lungs  from repeated exposure.
Aspiration toxicity;      No information available

13. ECOLOGICAL INFORMATION
Hazardous to the aquatic environment
Acute hazard  :        EC50(Selenastrum capricornutum,72hours) 170mgZnO LISEC 1997
CATEGORY  1
Chronic hazard ;        Acute hazard  CATEGOLY  1
Biological accumulation potential  (BCF=217
²²О₂) by ZnO CATEGORY 1

14. DISPOSAL CONSIDERATIONS
Perform waste processing appropriately in accordance with the Waste Disposal and Public Cleaning Law.
Perform waste processing by relegating it to industrial waste disposal businesses that process industrial waste
and are approved by prefectural governors or local public authorities.
Do not dump into sewer, on the ground or into any body of water
Follow national and local regulations.

15. TRANSPORT INFORMATION
Marine regulation  :  Not available
Aviation regulation :  Not available
UN Hazard Class
UN Number   :  Not available
Confirm that there is no leakage from containers. Load the products so that there are no overturns, fall or damage. Be sure to prevent collapse of cargo.

15. REGULATORY INFORMATION
Follow all regulations in your country.
RoHS Statement: SHINMYOTAN does not contain Pb, Hg, Cd, Cr, PBBs, PBDEs as listed in RoHS Directives.

16. OTHER INFORMATION
TSCA Status: All ingredients of this product are listed on TSCA Inventory of Chemicals.
NFPA704: Health: 1 Flammability: 1 Instability: 1

DISCLAIMER
This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not be construed as guaranteeing any specific property of the product.

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