

Safety Data Sheet

1 PRODUCT AND COMPANY IDENTIFICATION

Product name:	ODEMARINE PF WHITE
Intended use:	paint
Manufacture:	
Company name:	NIPPON PAINT MARINE COATINGS CO., LTD.
Address:	2-1-2 Oyodo-kita, Kita-ku, Osaka, 531-8511 Japan
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2 HAZARDS IDENTIFICATION

CLASSIFICATION CODE

Carcinogenicity:Category1B
Specific target organ toxicity - repeated exposure:Category1

Symbol



Hazard statement	Danger H350 May cause cancer H372 Causes damage to organs through prolonged or repeated exposure
Comment	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash hands, mouth etc. thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P314 Get medical advice/attention if you feel unwell. P330 Rinse mouth. P304+P312 IF INHALED: Call a POISON CENTER/doctor, if you feel unwell. P308+P313 IF exposed or concerned: Get medical advice/attention. P405 Store locked up. P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Preparation: Preparation.

Chemical nature: epoxy resin paint

Ingredient Name	CAS No.	Concentration[%]	EC No.
titanium dioxide	13463-67-7	15-20	236-675-5
3-methyl 3-methoxy butanol	56539-66-3	1-5	260-252-4
triethylamine	121-44-8	0.1-1	204-469-4
N,N-dimethylethanolamine	108-01-0	0.1-1	203-542-8
2-butoxyethanol	111-76-2	0.1-1	203-905-0
styrene	100-42-5	0.1-1	202-851-5

Notes: this product contained the following substances that present a human hazard in accordance with

EC No. 1272/2008.

ML code is one of manufacturer's own marks to control the quantity of new material for the countries that regulate the new material.

4 FIRST-AID MEASURES

Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Skin contact:	In case of contact, immediately wash skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.
Eye contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
Ingestion:	If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention immediately.

5 FIRE-FIGHTING MEASURES

suitable fire-extinguishing media

[OK]water fog,[OK]CO₂,[OK]foam,[OK]dry chemicals,[OK]dry sand.

Notes: Fire will produce dense black smoke.

Decomposition products may be hazardous to health.

Avoid exposure and use breathing apparatus as appropriate.

Cool closed containers exposed to fire by spraying them with water.

Do not allow run off water and contaminants from fire fighting to enter drains or watercourses.

See section 10.

6 ACCIDENTAL RELEASE MEASURES

Avoid all sources of ignition(e.g. naked lights, unprotected light bulbs, electric handtools).

Ventilate the area and avoid breathing vapors.

Wear protective clothing and self-contained breathing apparatus when dealing with spillage or fire.

Collect spillage, where practical, for safe disposal.

Should be disposed of wastes and empty containers in accordance with regulations made under the control of pollution acts and the environmental protection acts.

Keep away from drains, surface- and ground-water and soil.

Use personal protection equipment.

Absorb and/or contain spillage with inert material(sand, vermiculite), then place it in a suitable container.

For large spills: Neutralize spillage area with soda ash or lime, diluted acetic acid.

Flush spillage area with water spray: Prevent runoff from entering water way or sewer.

Refer to headings 8 and 13.

7 HANDLING AND STORAGE

Handling:

Keep away from heat, sparks and flame.

Keep container closed.

Do not breath (dust, vapor, mist, gas).

Use only in a well ventilated space.

Do not get in eyes, on skin, or on clothing.

Avoid prolonged or repeated contact with skin.

Wash thoroughly after handling.

Protection as shown in section 8.

Storage:

Store above 5 deg.C. (41 deg.F.).

Keep container closed.

Avoid prolonged or repeated contact with skin and inhalation.

Avoid prolonged or repeated contact with skin.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures: Provide adequate ventilation.

An eye wash facility should be readily available.

Facilities storing or utilizing this material should be equipped with an eye wash facility and a safety shower.

Exposure limit:

<u>Ingredient name</u>	<u>EU TLV(TWA)</u>	<u>ACGIH TLV(TWA)</u>
titanium dioxide	not est.	10 mg/m3
3-methyl 3-methoxy butanol	not est.	not est.
triethylamine	2 ppm	0.5 ppm
N,N-dimethylethanolamine	not est.	not est.
2-butoxyethanol	20 ppm	20 ppm
styrene	not est.	10 ppm

Notes:(RD)=respirable dust. (c)=ceiling limit. (Skin)=skin penetrative.

Mppcf=millions of particles per cubic foot.

Personal protection:

Respiratory protection: Wear appropriate equipment shown in EU directive 89/656/EC.

Hand protection: Wear impervious glove.

Eye protection: Wear chemical splash goggles and face shield when eye and face contact is possible due to splashing or spraying of material.

Skin protection: Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

Environmental exposure control: Do NOT let this product enter the environment.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
color: white
odor: weak acrid odor
pH: 8.8
boiling point(range): 100 - 178[deg.C](212 - 352[deg.F])
flash point: none.
ignition temperature: 235[deg.C](455[deg.F])
lower explosive limit: no data.
higher explosive limit: no data.
vapor pressure: 173[Pa]
specific density: 1.4/23[deg.C](73[deg.F])
vapor density: The vapor and the gas are heavier than air.
solubility in water: Miscible in water.
percentage volatile: 4.9[%]

10 STABILITY AND REACTIVITY

Stability: Stable under recommended storage and handling conditions (see section 7).
When exposed to high temperature, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

Hazardous reaction: Hazardous reaction will not occur.

Hazardous decomposition products: The products decomposed on heating producing their oxide or monomers.

11 TOXICOLOGICAL INFORMATION

There are no data available on the product itself.

Toxicological information of ingredients:

acute toxicity:

triethylamine

LC50(inhalation:vapour, rat)=2633[ppm/1H]

LD50(skin, rabbit)=415[mg/kg]

LD50(oral, rat)=460[mg/kg]

titanium dioxide

LD50(oral, rat)=2001[mg/kg]

styrene

LC50(inhalation:vapour, rat)=2770[ppm/1H]

LD50(oral, rat)=5000[mg/kg]

2-butoxyethanol

LC50(inhalation:vapour, rat)=450[ppm/1H]

LD50(skin, rabbit)=220[mg/kg]

LD50(oral, rat)=470[mg/kg]

3-methyl 3-methoxy butanol

LD50(skin, rabbit)=2001[mg/kg]

LD50(oral,rat)=2001[mg/kg]
N,N-dimethylethanolamine
LC50(inhalation:vapour,rat)=1641[ppm/1H]
LD50(skin,rabbit)=3135[mg/kg]
LD50(oral,rat)=2130[mg/kg]

local effects:

- eye irritant
 - triethylamine
 - styrene
 - 2-butoxyethanol
 - 3-methyl 3-methoxy butanol
 - N,N-dimethylethanolamine
- skin irritant
 - styrene
 - 2-butoxyethanol
- corrosive
 - triethylamine
 - N,N-dimethylethanolamine

sensitization:

No data.

chronically long term effect:

- titanium dioxide

specific effects

carcinogenic:

- titanium dioxide
 - Carcinogenic(IARC);Class:2B
 - Carcinogenic(OSHA)
- styrene
 - Carcinogenic(IARC);Class:2B
 - Carcinogenic(OSHA)
 - Carcinogenic(NTP);Reasonably anticipated to be human carcinogen

12 ECOLOGICAL INFORMATION

For spillage or waste, take care to avoid contaminating the environment.
Prevent leakage into the sewer, waterway or legal areas to avoid pollution.
There are no data available on the product itself.

Ecological information of ingredients

acute toxicity	3-methyl 3-methoxy butanol TLm 24-96h 7400ppm oryzias latipes
	triethylamine LC50(48h,oryzias latipes)=50.7mg/L
persistence	triethylamine non-biodegradable:25-34%(4week/)
	N,N-dimethylethanolamine biodegradable:61%(2week/)
	2-butoxyethanol biodegradable:96%(2week/)
	styrene biodegradable:100%(2week/)

triethylamine example of bioaccumulation:4.9X(6week)

Data are based on "Biological and Bioaccumulation Data of Existing Chemicals Based on the CSCL Japan" Compiled under the supervision of METI(MITI) Japan.

13 DISPOSAL CONSIDERATIONS

The product should not be allowed to release into the drains and watercourses.

All notification, clean-up and disposal should be carried out in accordance with European Union, governmental and local regulations

Preferred method of waste disposal are incineration or biological treatment in federal/state approved facility

Wastes and empty containers should be disposed of in accordance with regulations made under the control of pollution acts and the environmental protection acts

Empty containers should be recycled or disposed of through an approved waste management facility.

It is strongly advised not to let the chemical enter into the environment.

14 TRANSPORT INFORMATION

UN regulation

UN Shipping name: not applicable.

UN identification number: not applicable.

UN Class: not applicable.

UN Packaging group: not applicable.

IMDG Class: not applicable.

storage temperature Store above 5 deg.C.(41 deg.F.).
See section 7, Handling and storage.

15 REGULATORY INFORMATION

The information on the SDS is based on the present state of our knowledge and on current EU laws.

Please refer to any other national measures that may be relevant.

16 OTHER INFORMATION

This information contained in this data sheet represents the best information currently available to us.

However, no warranty is made with respect to its completeness and we assume no liability resulting from it.

It is advised to make their own tests to determinate the safety and suitability of each such product or combination for their own.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

The product should not be used for purposes other than shown in the safety data sheet without first obtaining written advice.
