SAFETY DATA SHEET

1. IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product Name: **NIPPON RED OXIDE PRIMER**

Manufacturers Code : 815X

Intended Use :Paint for surface protect

Manufacturer : NIPPON PAINT (M) SDN. BHD. (7516-H)
Lot I-17, Taman Perindustrian Subang Utama,
Jalan SU 4, 40300 Shah Alam,
Selangor Darul Ehsan.

Emergency Tel No : 603-5125 0888
Fax Number : 603-5191 4849

2. HAZARD IDENTIFICATION

Class (GHS) Classification :

Physical Hazard

Flammable Liquids	Category 3

Health Hazard

Aspiration Hazard	Category 1
Carcinogenicity	Category 1 B
Germ Cell Mutagenicity	Category 1 B
Specific Target Organ Toxicity-Single Exposure	Category 2

Environmental Hazard

Hazardous To The Aquatic Environment-Chronic Hazard	Category 3

Class (GHS) Pictogram

Signal Word
Danger

Hazard Statement
H226: Flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H340: May cause genetic defects (route of exposure inhalation or dermal).

H350: May cause cancer (route of exposure inhalation or dermal)

H371: May cause damage to organs (route of exposure inhalation or dermal).

H412: Harmful to aquatic life with long lasting effects.

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

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ ventilating/lighting / equipment.
P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

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

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

P260: Do not breathe dust/fume/gas/mist/ vapours/spray.
P264: Wash thoroughly after handling.

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

P273: Avoid release to the environment

Response
P303+P361+P353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378: In case of fire: Evacuate area.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331: Do NOT induce vomiting.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P309+P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Storage
P403+P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

Disposal
P501: Dispose of content/container to appropriate waste site or reclaimer in accordance with local or national regulations.

3. COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

This product is a mixture

Ingredient	CAS NO.	%
TURPENTINE OIL	8006-64-2	0.05 - 0.08
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	64742-48-9	0.21 - 0.33
WHITE SPIRIT, NAPHTHA (PETROLUEM)	64742-82-1	8.73 - 10.48
ETHYL BENZENE	100-41-4	0.09 - 0.56

4. FIRST AID MEASURES

Eye Contact :
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelid open. Do not use an eye oilmen. Seek medical attention.

Skin Contact :
Frequent or prolonged contact may irritate and cause dermatitits. Skin contact may aggravate an exiting dermatitis condition. Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Get medical attention if redness or irritation occurs.

Inhalation :
High vapour (>1000 ppm) are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anaesthesia. Drowsine unconsciousness and other central nervous system effects. Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform mouth to mouth resuscitation. Administer oxygen if available. Allow the victim to rest in a well ventilated area. Seek medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Fire Extinguishing Media :
Small Fire : Use dry chemical. Foam or CO2. Large Fire : Use water spray. Fog or foam. Water or foam may cause frothing.

Special Protective Actions For Fire Fighters
Cool container in water spray in order to prevent pressure build-up, auto ignition or explosion. Avoid flushing spilled material into sewers, stream or other bodies of water. For small out door fires, portable fire extinguishers may be used, and self contained breathing apparatus (SCBA) may not be required. Respiratory and eye protection are required for fire fighting personnel.

Specific Hazards Arising From The Chemical:
Static discharge, material can accumulate static charges which can cause an incendiary electrical discharge. "Empty" containers retain product residue (liquid and / or vapour) and can be dangerous. DO NOT pressurize, cut, weld braze, solder, drill grind, or expose such containers to heat, flame sparks, static electricity, or other sources of ignitiion; they may explode and cause injury or death.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURE
Eye / Skin Protection : Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available. Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Wear a face shield and chemical resistant clothing such as rubber apron when splashing is likely.

Respiratory Protection :
Use JKKP / NIOSH approved respiratory protection (full face piece recommended) when exposure limits are exceeded.

Ventilation :
Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. If practical, use local mechanical exhause ventilation at source of air contamination such as open process equipment.

ENVIRONMENTAL PRECAUTIONS
Flammble liquid. Ventilate. Eliminate all sources of ignition. Prevent additional discharge of material. For small spills implement cleanup procedures; for large spills implement cleanup procedures and if in public area, keep public away and advise authorities, provide suitable personal protective, dike and contain spill with inert material (sand, earth, ect) and transfer liquid and solid separately to containerfor recovery or disposal. Report as per regulatory or disposal. Do not use combustible material such as sawdust. Report as per regulatory requirements.

METHODS AND MATERIALS FOR CONTAINMENTS AND CLEAN UP
For small liquid spills (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For large liquid spills (> 1drum), transfer by mechanical means such vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:
Avoid smoking and use of open fire. Avoid inhalation of vapours and contact with skin and eyes. Observe good industrial practices.

CONDITION FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Store in tightly closed original container in well-ventilated area. Avoid expose to direct sunlight.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS / OCCUPATIONAL LIMITS

	ACGIH TLV-TWA		OSHA PEL-TWA	
Ingredient	**ppm**	**mg/m3**	**ppm**	**mg/m3**
TURPENTINE OIL	20	-	100	560
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	200	-	400	1590
WHITE SPIRIT, NAPHTHA (PETROLUEM)	-	-	-	-
ETHYL BENZENE	-	-	100	434

APPROPRIATE ENGINEERING CONTROL MEASURES

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

PERSONAL PROTECTION
Respiratory protection
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known

or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: Full mask with type Cartridge filter

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations.

Eye protection
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: safety glasses with side-shields.

Skin / Body protection
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: Wear protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : LIQUID

Odour : Aromatic Hydrocarbon

Odour Treshold : N/A

pH : Not Available

Melting Point (Cel) : Not Applicable

Initial Boiling Point (Cel) : 138.00

Maksimum Boiling Point (Cel) : 192.00

Flash Point : 41.51 Degree Celsius

Evaporation Rate : Not Applicable

Flammability (solid, gas) :

Lower Flammable Limit LEL or Explosion Limit(%) : 1.00

Upper Flammable Limit UEL or Explosion Limit(%) : 7.10

Vapour Pressure : Not Applicable

Vapour Density : Not Applicable (water = 1)

Relative Density : Not Available

Solubility : Not soluble in water

Partition Coefficient : Not Available

Auto-ignition Temperature (Cel) : Not Applicable

Decomposition temperature (Cel) : Not Available

Viscosity : 68.0 - 72.0 kU

Percent Volatile : 15-30%

Specific Gravity and other properties if applicable: 1.23 - 1.43 g/cm3

10. STABILITY AND REACTIVITY

REACTIVITY
No dangerous reaction known under condition of normal use.

CHEMICAL STABILITY
Stable under normal temperature conditions and recommended use.

POSSIBILITY OF HAZARDOUS REACTION
Under normal conditions of storage and use, hazardous reaction will not occur

CONDITIONS TO AVOID
Heat, flames and sparks.
Nitric acid, sulfuric acid, strong oxidizing agents.
Electrostastic accumulation hazards? Yes, use proper grounding procedure.

HAZARDOURS DECOMPOSITION PRODUCTS
When exposed to high temperatures, may produce hazardous decomposition products such as Carbon dioxide, carbon monoxide, oxides of nitrogen and smoke.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself.
Toxicological information of hazardous ingredients:

Aspiration Hazard

Ingredient	Oral LD50	Dermal LD50	Inh(Gas) LC50	Inh(Vapor) LC50	Inh(Dust/mist) LC50
TURPENTINE OIL	500	1100	DNA	DNA	DNA
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	DNA	DNA	DNA	DNA	DNA
WHITE SPIRIT, NAPHTHA (PETROLUEM)	5000	DNA	DNA	DNA	DNA
ETHYL BENZENE	3500	17800	DNA	17.4	DNA

Germ Cell Mutagenicity

Ingredient	Oral LD50	Dermal LD50	Inh(Gas) LC50	Inh(Vapor) LC50	Inh(Dust/mist) LC50
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	DNA	DNA	DNA	DNA	DNA
WHITE SPIRIT, NAPHTHA (PETROLUEM)	5000	DNA	DNA	DNA	DNA

Carcinogenicity

Ingredient	Oral LD50	Dermal LD50	Inh(Gas) LC50	Inh(Vapor) LC50	Inh(Dust/mist) LC50
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	DNA	DNA	DNA	DNA	DNA
WHITE SPIRIT, NAPHTHA (PETROLUEM)	5000	DNA	DNA	DNA	DNA

Specific Target Organ Toxicity-Single Exposure

Ingredient	Oral LD50	Dermal LD50	Inh(Gas) LC50	Inh(Vapor) LC50	Inh(Dust/mist) LC50
WHITE SPIRIT, NAPHTHA (PETROLUEM)	5000	DNA	DNA	DNA	DNA

12. ECOLOGICAL INFORMATION

ECOTOXICITY
No data Available

PERSISTENCE AND DEGRADABILITY
No information available.

BIOACCUMULATIVE POTENTIAL
Has the potential to bioaccumulate.

MOBILITY IN SOIL
Floats on water. Adsorbs to soil and has low mobility.

OTHER ADVERSE EFFECTS
Do not allow product to reach ground water, water course or sewage system.

Ingredient	Fish 96 hour,LC50	Crustacea 48 hour,EC50	Algae 72 or 96 hour,ErC50
TURPENTINE OIL	DNA	DNA	DNA
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	DNA	DNA	DNA
WHITE SPIRIT, NAPHTHA (PETROLUEM)	5.5	DNA	DNA
ETHYL BENZENE	DNA	DNA	DNA

13. DISPOSAL CONSIDERATIONS

Waste Disposal :
Recover or recycle if possible. Otherwise dispose in accordance with all applicable national environment laws and regulations.

Product Disposal :
This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

Container Disposal :
Drain container thoroughly. Rinse three times with suitable solvent. Treat rinsings as for product disposal. After draining, vent in a safe place away from sparks and fire. Send drum recoverer or metal reclaimer.

Residue may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.
Keep container labelled until cleaned and then remove or deface labels.

All federal and local environmental regulations shall be observed

14. TRANSPORT INFORMATION

Transport to be in accordance with ADR/RID for road/rail, IMDG for sea and IATA for Air.

LAND TRANSPORT
Classified as Dangerous Goods by the criteria of the European Agreement concerning the international carriage of Dangerous Goods (ADR) by Road &Regulations concerning the international carriage of Dangerous goods (RID) by Rail.

UN Number : 1263

Proper shipping name :
PAINT (including paint, lacquer, enamel, stain, shellac, varnish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound).

Class : 3
Packaging Group : III

SEA TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport of Sea.

UN Number : 1263

SEA TRANSPORT
Proper shipping name / Nama penghantaran :
PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound).

Class : 3
Packaging Group : III
Marine Pollutant : Yes

SEA (Annex II of MARPOL 73/78 and the IBC code) / LAUT (Annex II of MARPOL 73/78 and the IBC code)
Not applicable

AIR TRANSPORT
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by Air

UN Number : 1263

Proper shipping name :
PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound).

Class : 3
Packaging Group : III

15. REGULATORY INFORMATION

Applicable national regulations :

a) OHSA 1994 and relevant regulation;

b) Factories and Machinery Act 1967 and relevant reguations;

c) Environmental Quality Act 1974 and regulations;

d) Pesticide Act 1974 and regulations;

e) Occupational Safey and Health (Classification, Labelling And Safety Data Sheet of Hazardous Chemicals) Reg 2013.

d) Industry Code Of Practice (On Chemicals Classification And Hazard Communication)

16. OTHER INFORMATION

Date Of Preparation : 01 April 2015
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ABBREVIATION

ACGIH American Conference of Governmental Industrial Hygienists
TLV Threshold limit value
TWA Time-Weighted Average
OSHA OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limit
LD50 Lethal Dose
LC50 Median lethal concentration
IACR International Agency for Research in Cancer
CAS Registry Numbers Chemical Abstracts Service Registry Numbers
ICOP Industry Code Of Practice on Chemicals Classification and Health approved by Minister under section 37 of the Act
C Ceiling limit
CEIL Ceiling limit airborne concentration
STEL Short term exposure limit
DNA Data not available
N/R Not Regulated

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