SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : **NAX 2K EXTRA FINE PUTTY 869 HARDENER**
Intended use : Activator for putty
Manufacture :

Company name : NIPPON PAINT(Thailand) CO.,LTD
Address : 101 MOO 3 SOI SUKSAWAT 76,SUKSAWAT ROAD,
T.BANGCHAK A.PRAPRADAENG,SAMUTPRAKARN 10130
Telephone No. : +66(0)2463-0032
Facsimile No. : +66(0)2463-2214
Emergency phone No.

2. HAZARDS IDENTIFICATION

GHS Classification

- Organic peroxides, Category type E
- Acute toxicity : Dermal, Category 1
- Serious eye damage/ eye irritation, Category 2A
- Sensitization : Skin, Category 1

GHS Label elements

Hardzard Symbols

Signal Words **DANGER**

Hazard statements

H242 Heating may cause a fire
H310 Fatal in contact with skin
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction

Precautionary statements

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces.– No smoking.
P220 Keep /Store away from clothing combustible materials
P234 Keep only in original container
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash hand, mouth, etc, thoroughly after handling
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/eye protection/face protection

Response

P302 + P350	IF ON SKIN: Gently wash with plenty of soap and water.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lense if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P321	Specific treatment (See on First Aid Measures)
P322	Specific measures (See on First Aid Measures)
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use CO2, powder or water spray for extinction.

Storage

P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P410	Protect from sunlight.
P411	Store at temperatures not exceeding 25°C/ 77°F.
P420	Store away from other materials

Disposal

P501	Dispose of contents/container in accordance with local/regional/nation/ international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS No.	Concentration (%)
DIBENZOYL PEROXIDE	94-36-0	60 - <70
DIMETHYL PHTHALATE	131-11-3	30 - <35

4. FIRST-AID MEASURES

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

IF SKIN CONTACT	:	Immediately wash with water and soap and rinse thoroughly.
IF SWALLOWED	:	Do not induce vomiting; consult a doctor immediately
IF INHALED	:	Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
IF IN EYES	:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Remove contanct lenses in case of eye contamination and irrigae copiously with clean water for at least 15 minutes trying to hold the eye lids open.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE-FIGHTING MEASURES

Suitable fire-extinguishing media:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbonic anhydride
Benzoic acid
Benzene
Biphenyl
Phenyl benzoate

Advice for firefighters

Firefighters should always protective equipment and breathing apparatus when handling fire coming from these products

Speial protective equipment and fire fighting procedures:

Wear fully protective suit.

Firefighters should wear full protective flameproof clothing and self contained breathing apparatus for the firefighter if necessary. In the event of any fire try cool down the tanks with water spray.

If possible do not allow the water used by firefighters to enter the drains or come in any contact with the water supply lines for the public. Always seek as appropriate.

Wear suitable fire protection equipment

Additional information Collect contaminated fire fighting water separately.

It must not enter the sewage system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Pick up immediately

7. HANDLING AND STORAGE

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

As genoral storage guide: store separately from oxidizing agents and strongly alkaline and strongly acidic materials.

Do not store together with explosives, gases, oxidizing solids, products which form flammable gases in contact with water, oxidizing products, infectious products and radioactive products.

Do not store together with reducing agents, heavy metal compounds,acids and alkalis.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s) No further relevant information available.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure limit :

Ingredient Name	WEL
DIMETHYL PHTHALATE	Short-term value: 10 mg/m^3 Long-term value: 5 mg/m^3

Personal protection :

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

The breakthough time of gloves is unknown for this product itself. The glove material that can be used is recommended on the baseis of the different substances in the preparation.

For the permanent contact gloves made of the following materials are suitable:

Fluorocarbon rubber (Viton)

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Rubber gloves

Eye protection:

Tightly sealed goggles

Body protection: Protective work clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Fluid
Color	:	According to product specification
Odor	:	Characteristic
Odour threshold	:	Not determined.
pH value	:	Not determined.
Melting point (range)	:	Undetermined.
Boiling point (range)	:	283 °C
Flash point	:	Not applicable
Autoignition temperature	:	555 °C
Self-igniting	:	Product is not selfigniting
Danger of explosion	:	Risk of explosion by shock, friction, fire or other sources of ignition. SADT 50 ºC The SADT (self accelerating decomposition temperature) is an experimentally determined temperature at which the product, in its conventional packaging will decompose in a self accelerating reaction.
Lower explosion limit	:	Not determined.
Upper explosion limit	:	Not determined.
Vapour pressure at 20 °C	:	1 hPa
Specific density	:	1.281 g/cm^3 at 20 °C
Vapor density	:	Not determined.
Solubility in water	:	Not miscible or difficult to mix.
Solvent content	:	16%
solid content	:	65%

10. STABILITY AND REACTIVITY

- Reactivity

- Chemical stability

Thermal decomposition / conditions to be avoided: Visible decomposition with spontaneous ignition on heating.

- Possibility of hazardous reactions

Reacts with heavy metals.

Reacts with alkali, amines and strong acids.

Reacts with reducing agents.

- Conditions to avoid No further relevant information available.

- Incompatible materials: Reducing agents like amines, acids, alkali, compounds based on heavy metals(i.e accelerators)

- Hazardous decomposition products:

Phenol

Carbon dioxide

Benzene

Benzoic acid

Biphenyl

Phenyl benzoate

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

acute toxicity :

LD/LC50 values that are relevant for classification:

DIMETHYL PHTHALATE

LD_{50}(oral,rat) = 6,800 mg/kg

LD_{50}(dermal,rabbit) >10 mg/kg

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization:

Sensitization possible through skin contact.

Sensitizing effect through inhalation is possible by prolonged exposure.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: irretant

12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

This product is not toxic for the aquatic life. Nevertheless do not dispose the product or any cleaning solvents used along with this product into the sea

Persistence and degradability

This prouduct contains polyesteric molecules and organic solvents and is not known to be bioaccumulative. It can be considered as biodegradable in small quantities. In case of disposal, it should be treated as a hazardous material and should be disposed accordingly. Do not just throw it away

Bioaccumulative potential

This product is not known to have bioaccumulative potentials. It should not be disposed in areas where living organisms could consume. Dispose it as a hazardous material according to local laws and regislations

Mobility in soil

This product is not considered to present any mobility in soil. Do not dispose it in the soil and treat it as a hazardous product according to local laws and legislations.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Water hazard class 1 (German Regulation) (2): hazardous for water

Results of PBT and vPvB assessment

PBT: This product contains no substance that is considered to be persistent,bioaccumulating or non toxic(PBT).

vPvB: This mixture contains no substance that is considered to be very persistent or very bioaccumulating (vPvB).

Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations

14. TRANSPORT INFORMATION

UN-Number

ADR, IMDG, IATA UN 3108

UN proper shipping name

ADR 3108 ORGANIC PEROXIDE TYPE E, SOLID

IMDG, IATA ORGANIC PEROXIDE TYPE E, SOLID

Transport hazard class(es)

ADR, IMDG, IATA

Class 5.2

Label 5.2

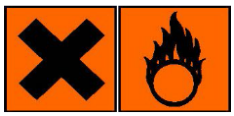
15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:



Xi Irritant

O Oxidising

Hazard-determining components of labelling:

dibenzoyl peroxide

Risk phrases:

7 May cause fire.

36 Irritating to eyes.

43 May cause sensitisation by skin contact.

Safety phrases:

3/7 Keep container tightly closed in a cool place.

14 Keep away from acidic substances and heavy metal compounds.

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

25 Avoid contact with eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

29 Do not empty into drains.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

51 Use only in well-ventilated areas.

60 This material and its container must be disposed of as hazardous waste.

15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

16. OTHER INFORMATION

This information is based on our current knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H241 Heating may cause a fire or explosion.

H310 Fatal in contact with skin.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

R2 Risk of explosion by shock, friction, fire or other sources of ignition.

R36 Irritating to eyes.

R43 May cause sensitisation by skin contact.