

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: NSK GREASE PS2

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture: Grease

Uses advised against No specific uses advised against are identified.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

NSK Ltd.

Nissei Bldg., 1-6-3, Ohsaki, Shinagawa-ku, Tokyo, 141-8560, Japan

Further information obtainable from:

Japan: Tel: +81-3-3779-7227, Fax: +81-3-3779-7433

UK: Tel: +44-1636-643138, Fax: +44-1636-643141

1.4 Emergency telephone number: Japan: +81-3-3779-7227 / UK: +44-1636-643138

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation(EC) No 1272/2008 : Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

: The product is classified and labelled according to the CLP regulation.

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

: Not applicable.

Signal word

: Not applicable.

Hazard statements

: H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

: P273 Avoid release to the environment.
: P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information

: EUH208 Contains 4,4'-methylenebis[N-sec-butylaniline]. May produce an allergic reaction.

2.3 Other hazards

Result of PBT and vPvB assessment

PBT

: Not applicable.

vPvB

: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Description : Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 5285-60-9	4,4'-methylenebis[N-sec-butylaniline]	<1%
EINECS: 226-122-6	⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	

Additional information: For the wording of the listed hazard phrases refer to section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

After inhalation

: Supply fresh air; consult doctor in case of complaints.

After skin contact

: Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.

After eye contact

: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing

: Do not induce vomiting; call for medical help immediately.

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. FIREFIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing agents** : CO₂, powder or water spray. Fight larger fire with alcohol resistant foam. Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture** : Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters** : **Protective equipment:** Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** : Particular danger of slipping on leaked/spilled product.
- 6.2 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.
- 6.3 Methods and material for containment and cleaning up** : Dispose contaminated material as waste according to item 13.
: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

- 7.1 Precaution for safe handling** : Keep away from heat and direct sunlight.
- Information about fire - and explosion protection** : When heated the product forms flammable fumes.
- 7.2 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 : Store away from oxidising agents.
Further Information about storage conditions : Protect from contamination.
- 7.3 Specific end use(s)** : No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**
Ingredients with limit values that require monitoring at the workplace : The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information : The lists valid during the making were used as basis.
- 8.2 Exposure controls**
8.2.1 Appropriate engineering controls : No further data; see item 7.
8.2.2 Individual protection measures, such as personal protective equipment
General protective and hygienic measures : Wash hands before breaks and at the end of work.
Respiratory protection : Not necessary if room is well-ventilated.
Hand protection : Oil resistant 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.
	: Nitrile rubber, NBR
	: PVC or PE gloves
	: Neoprene gloves
Penetration time of glove material	: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection	: Safety glasses
8.2.3 Environmental exposure controls	: 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White
Odour	: Recognizable
Melting point/freezing point	: Undetermined.
Boiling point or initial boiling point and boiling range	: Undetermined.
Flammability	: Not determined.
Lower and upper explosion limit	
Lower	: Not determined.
Upper	: Not determined.
Flash point	: 215°C (Seta)
Auto-ignition temperature	: Product is not selfigniting.
Decomposition temperature	: Not determined.
pH	: Not applicable.
Viscosity	
Kinematic viscosity	: Not applicable.
Dynamic	: Not applicable.
Solubility	
water	: Insoluble.
Partition coefficient n-octanol/water (log value)	: Not determined.
Vapour pressure	: Not applicable.
Density and/or relative density	
Density at 25 °C	: 0.91 g/cm ³
Relative density	: Not determined.
Vapour density	: Not applicable.
Particle characteristics	: Not applicable.

9.2 Other information

Appearance

Form	: Pasty
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9.2.1 Information with regard to physical hazard classes

Explosives	: Not applicable.
Flammable gases	: Not applicable.
Aerosols	: Not applicable.
Oxidising gases	: Not applicable.
Gases under pressure	: Not applicable.
Flammable liquids	: Not applicable.
Flammable solids	: Not applicable.
Self-reactive substances and mixtures	: Not applicable.
Pyrophoric liquids	: Not applicable.
Pyrophoric solids	: Not applicable.
Self-heating substances and mixtures	: Not applicable.
Substances and mixtures, which emit flammable gases in contact with water	: Not applicable.
Oxidising liquids	: Not applicable.
Oxidising solids	: Not applicable.
Organic peroxides	: Not applicable.
Corrosive to metals	: Not applicable.
Desensitized explosives	: Not applicable.
9.2.2 Other safety characteristics	: Not applicable.

10. STABILITY AND REACTIVITY

- 10.1 Reactivity** : No further relevant information available.
- 10.2 Chemical Stability**
- Thermal decomposition / conditions to be avoided** : To avoid thermal decomposition do not overheat.
- 10.3 Possibility of hazardous reactions** : No dangerous reactions known.
- 10.4 Conditions to avoid** : No further relevant information available.
- 10.5 Incompatible materials** : No further relevant information available.
- 10.6 Hazardous decomposition Products** : Carbon monoxide and carbon dioxide
Toxic metal oxide smoke

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity** : Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification** : Based on available data, the classification criteria are not met.
- Skin corrosion/irritation** : Based on available data, the classification criteria are not met.
- Serious eye damage/irritation** : Based on available data, the classification criteria are not met.
- Respiratory or skin sensitization** : Based on available data, the classification criteria are not met.
- Germ cell mutagenicity** : Based on available data, the classification criteria are not met.
- Carcinogenicity** : Based on available data, the classification criteria are not met.
- Reproductive toxicity** : Based on available data, the classification criteria are not met.
- STOT-single exposure** : Based on available data, the classification criteria are not met.
- STOT-repeated exposure** : Based on available data, the classification criteria are not met.
- Aspiration hazard** : Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards**
- 11.2.1 Endocrine disrupting properties** : None of the ingredients is listed.
- 11.2.2 Other information** : Not applicable.

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity**
- Aquatic toxicity** : No further relevant information available.
- 12.2 Persistence and degradability** : Not easily biodegradable
- 12.3 Bioaccumulative potential** : No further relevant information available.
- 12.4 Mobility in soil** : No further relevant information available.
- 12.5 Result of PBT and vPvB assessment** : PBT Not applicable.
vPvB Not applicable.
- 12.6 Endocrine disrupting properties** : The product does not contain substances with endocrine disrupting properties.
- 12.7 Other adverse effects**
- Remark** : Harmful to fish
- Additional ecological information**
- General notes** : Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods**
- Recommendation** : Hand over to hazardous waste disposers.
- Uncleaned packaging**

Recommendation : Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

14.1 UN number or ID number

ADR,ADN, IMDG, IATA Not Restricted

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA Not Restricted

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA Class Not Restricted

14.4 Packing group

ADR,ADN, IMDG, IATA Not Restricted

14.5 Environmental hazards:

Marine pollutant : No

14.6 Special precautions for user See sections 6 to 8 of this Safety Data Sheet.

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

UN "Model Regulation" : Not Restricted

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU

Named dangerous substances-ANNEX I None of the ingredients is listed.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)) None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors None of the ingredients is listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

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

Department issuing SDS:

Contact: Industrial Machinery Business Division Headquarters at NSK Ltd.

Relevant phrases

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Date of previous version: 03.02.2017

Abbreviations and acronyms:

RID : Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord europeen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals



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EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3