

SAFETY DATA SHEETS

1. IDENTIFICATION

Product identifier : RUST REMOVER K-200

Company product code : A-0029

Supplier's name : Nippon Mecha-Chemical Co., Ltd.

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Specific use : Rust remover

2. HAZARD IDENTIFICATION

GHS classification

Physical hazards	Explosives	Not classified
	Flammable gases	Not classified
	Flammable aerosols	Not classified
	Oxidizing gases	Not classified
	Gases under pressure	Not classified
	Flammable liquids	Not classified
	Flammable solids	Not classified
	Self-reactive substances and mixtures	Not classified
	Pyrophoric liquids	Not classified
	Pyrophoric solids	Not classified
	Self-heating substances and mixtures	Not classified
	Substances and mixtures which, in contact with water, emit flammable gases	Not classified
	Oxidizing liquids	Not classified
	Oxidizing solids	Not classified
Organic peroxides	Not classified	
Health hazards	Corrosive to metals	Classification not possible
	Acute toxicity (oral)	Not classified
	Acute toxicity (dermal)	Classification not possible
	Acute toxicity (gases)	Not classified
	Acute toxicity (vapours)	Classification not possible
	Acute toxicity (dust / mist)	Classification not possible
	Skin corrosion / irritation	Category 1
	Serious eye damage / eye irritation	Category 1
	Respiratory sensitization	Classification not possible
	Skin sensitization	Classification not possible
	Germ cell mutagenicity	Category 1
Carcinogenicity	Classification not possible	
Reproductive toxicity	Category 1	
Specific target organ systemic toxicity single exposure	Category 3 (respiratory tract irritation, narcotic)	

SAFETY DATA SHEETS

Specific target organ systemic toxicity Category 1 (liver)
 repeated exposure Category 2 (nervous system)
 Aspiration hazard Classification not possible
 Environmental Acute aquatic toxicity Classification not possible
 hazards Chronic aquatic toxicity Classification not possible
 Labelling elements : Exclamation mark / Corrosion / Health hazard



Signal words : Danger

Hazard statements : Causes severe skin burns and eye damage.
 May cause genetic defects.
 May damage fertility or the unborn child.
 May cause respiratory irritation.
 May cause drowsiness and dizziness.
 Causes damage to liver through prolonged or repeated exposure.
 May cause damage to nerve through prolonged or repeated exposure.

Precautionary statements : This is an acidic product. Avoid addition or mixture of the compounds which react with acid to decompose or produce gases (except specific alkaline neutralising agent for disposal process).
 Must NOT use metal containers for usage and storage of this product. Non fragile plastic containers are recommended.
 Avoid metal containers for temporal storage of wastewater.
 Wear safety glasses or rubber gloves if necessary.
 If accidentally contact with eyes or skin, rinse with water and seek for medical attention if necessary.
 For accidental leakage, neutralise with alkaline agent (sodium carbonate, calcium hydroxide) then wash with water.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance or Mixture : Mixture

<u>Component</u>	<u>Chemical name</u>	<u>Wt%</u>	<u>CAS Registry#</u>
A	Ethyl alcohol	8	64-17-5
B	Phosphoric acid	13	7664-38-2

GHS hazardous ingredients : Components A and B

OSHA Hazardous Ingredients (29 CFR 1910-1200) : Components A and B

SAFETY DATA SHEETS

Annex I to directive 67/548/EEC : Components A and B

4. FIRST AID MEASURES

- Inhalation : Rest in a well ventilated area. Keep the person warm by using blanket.
Seek medical attention if necessary.
- Skin contact : Rinse with plenty of water for at least 15 minutes. Seek medical attention if necessary.
- Eye contact : Rinse immediately with clean running water immediately for at least 15 minutes. Seek medical attention if necessary.
- Ingestion : Give a glass of water and induce vomiting.
When cannot vomit or illness remains, give large amount of water or milk, and seek medical attention immediately.

5. FIRE FIGHTING MEASURES

- Extinguishing media : Foam, Carbon dioxide, Dry chemical, Water
- Fire fighting instructions : For peripheral fire, the following procedure should be taken.
1. Move container(s) to safe place.
 2. If cannot move the containers, keep it wet and cool by using water. Treat carefully to avoid container breakage.
 3. Be aware of possible contamination by extinguishing water or diluted chemical liquid.
- Protective equipment : Quenching should start from the windward, wear rubber-boots and full protective clothes include breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Corrosive. Wear appropriate personal protective equipment in order to avoid contact with eyes, skin and clothing.
- Environmental precautions : Must NOT drain directly.
- Methods and materials for containment and cleaning up : Wear appropriate protective equipment, and collect the leaked agent in empty container as much as possible. Neutralise the left over with alkaline chemicals (slaked lime), and wash it away with water. Be aware of possible environmental attack by the leakage.
Keep appropriate ventilation.

7. HANDLING AND STORAGE

- Handling : Handle the container carefully to avoid fall and damage.
Avoid using metal container. We recommend non fragile polyethylene resin container.
Keep container closed during storage.
Wear appropriate personal protective equipment in order to avoid contact

SAFETY DATA SHEETS

with eyes, skin and clothes.

Prevent mixture with incompatible substances (Alkaline / Oxidising agent / Amine / Phosphorus trichloride / Phosphoryl chloride).

Storage : Keep the container closed to prevent mixture with other substances.
Never store with Alkaline / Oxidising agent / Amine / Phosphorus trichloride / Phosphoryl chloride at same area.
Store in a cool ventilated area and avoid direct sunlight.
Never use metal container for storage. We recommend non fragile polyethylene resin container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit values [Ethyl alcohol] : ACGIH (1999) TLV-TWA 1,880mg/m³
[Phosphoric acid] : ACGIH (1999) TLV-TWA 1mg/m³

Engineering controls : Use with adequate ventilation.
Handle and store in a cool ventilated space.

Personal protective equipment

Respiratory protection : Air-purifying respirator
Hand protection : Rubber gloves
Eye protection : Safety glasses
Skin protection : Protective clothing, face shield

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Green clear liquid
Odour : Slight alcoholic odor
pH : <1
Melting point / freezing point : Not available
Initial boiling point and boiling range : Not applicable
Flash point : Not applicable
Upper / lower flammability or explosive limits : Not applicable
Vapour pressure : Not applicable
Vapour density : Not applicable
Relative density : 1.12 g/cm³ (15°C)
Solubility : Water soluble
Partition coefficient : n-octanol / water : Not applicable
Auto-ignition temperature : Not applicable
Decomposition temperature : Not available
Viscosity : 3.4 mPa·s (15°C)

10. STABILITY AND REACTIVITY

Chemical stability : Stable
Possibility of hazardous reactions : Information is not available
Conditions to avoid : Ebullition

SAFETY DATA SHEETS

Incompatible materials : Alkaline / Oxidising agent / Amine / Phosphorus trichloride / Phosphoryl chloride
Hazardous decomposition products : Generate toxic phosphoric gas by heat dissolution

11. TOXICOLOGICAL INFORMATION

Acute toxicity [Ethyl alcohol] : LD₅₀ 5,000 mg/kg (rat/ingestion)
LC₅₀ (4 hours) 63,000 ppm (rat/inhalation)
[Phosphoric acid] LD₅₀ 1,530 mg/kg (rat/ingestion)
LD₅₀ 2,740 mg/kg (rabbit/skin exposure)
LC₅₀ 0.85 over mg/L/1 hr (rat/inhalation)

Skin corrosion / irritation : [Ethyl alcohol] Not classified
[Phosphoric acid] Category 1A - 1C

Serious eye damage / eye irritation : [Ethyl alcohol] Category 2A-2B
[Phosphoric acid] Category 1

Respiratory or skin sensitization : [Ethyl alcohol] Classification not possible
[Phosphoric acid] Classification not possible

Germ cell mutagenicity : [Ethyl alcohol] Category 1B
[Phosphoric acid] Classification not possible

Carcinogenicity : [Ethyl alcohol] Not classified
[Phosphoric acid] Classification not possible

Reproductive toxicity : [Ethyl alcohol] Category 1A
[Phosphoric acid] Classification not possible

Specific target organ systemic toxicity single exposure : [Ethyl alcohol] Category 3 (respiratory tract irritation, narcotic)
[Phosphoric acid] Category 3 (respiratory tract irritation)

Specific target organ systemic toxicity repeated exposure : [Ethyl alcohol] Category 1 (liver), Category 2 (nerve)
[Phosphoric acid] Classification not possible

Aspiration hazard : [Ethyl alcohol] Classification not possible
[Phosphoric acid] Classification not possible

12. ECOLOGICAL INFORMATION

Toxicity : Information is not available
Persistence and degradability : No biodegradation
Bioaccumulative potential : Low bioaccumulation (aquatic organisms)
Mobility in soil : Information is not available
Other adverse effects : Information is not available

13. DISPOSAL CONSIDERATIONS

Comply with all federal, state and local regulations.

14. TRANSPORT INFORMATION

Transport : Confirm no leak in vessel.

SAFETY DATA SHEETS

Carefully load cargo to avoid falling and damage.

UN number : 3264
UN hazard class : 8
UN subsidiary risks : Information is not relevant
UN packing group : 2
DOT regulation : Not regulated under 49 CFR

15. REGULATORY INFORMATION

This product is hazardous under the Federal OSHA hazard communication standard 29 CFR 1910.1200 (Ethyl alcohol, Phosphoric acid).

This product is hazardous under the Annex I to directive 67/548/EEC (Ethanol [F, R: 11, S: (2-)7-16], Phosphoric acid [C, R: 34, S: (1/2-)26-45]).

The compounds in the product are not under the Montreal Protocol, the Stockholm Convention and the Rotterdam Convention.

16. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Nippon Mecha-Chemical Co., Ltd. It relates only to the specific material designated herein, and does not relate to use in combination with any other material or in any process. Nippon Mecha-Chemical Co., Ltd. assumes no legal responsibility for use of or reliance upon this information.
