## Neutral, water-soluble degreaser for ferrous/nonferrous materials

# NMC ALL-METAL CLEANER

## [Features]

NMC ALL-METAL CLEANER is a neutral, water-soluble degreaser product. Having enhanced permeability and degreasing/cleaning power, it is capable of removing any and all types of grease, such as tough machine oil and animal/vegetable oil. It is also cost efficient as it can be diluted with water.

The product is best suited for various applications, ranging from routine cleaning to immersion cleaning of ferrous or aluminum parts.

As it contains corrosion inhibitor for copper, the product can be used to clean copper/copper alloy equipment and machined parts.

## [Properties/components]

Color: colorless transparent liquid, pH: 8.00 (undiluted solution)

Surfactants, corrosion inhibitor for copper, water, and others

## [Intended use]

- Removal of grease on machines in a factory
- Cleaning of office
- Removal of grease on kitchen equipment and tiled floors
- · Cleaning of ferrous, aluminum, and copper/copper alloy parts

4L or 20L package available

## [How to use the product]

Dilute the product with water before use, depending on the degree of grease to be removed. Recommended dilution:

[factory machines] undiluted or up to about 10-fold dilution; [office cleaning] 3- to about 20-fold dilution; [kitchen equipment] undiluted or up to about 10-fold dilution; [parts cleaning] 5- to about 20-fold dilution

\* For cleaning of copper parts, use of up to 10-fold diluted solution is recommended.

## [Cautions]

Following the cleaning of facilities, equipment, or parts, wipe the cleaned surfaces with a damp cloth or rinse them with water. Rustproof them as needed.

Make sure to read through "Safety Data Sheet" for the product before using it. Keep it out of the reach of babies and young children.

Wear rubber gloves when you use it for a long period of time.

Before using the solution on a painted surface, test it to see if paint stripping is caused.

1

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## **Superior Water Soluble Detergent**

# HYPROS HIGH CLEANER

## [Product features]

This product provides strong penetrating, degreasing and cleaning power that will surely remove all oil stains caused by machine oils and animal and vegetable oils. Cost reduction benefit is available because it can be diluted with water.

## [Properties & Components]

Color: Green liquid pH: 12.5 Gravity: 1.10 (Solution at 20°C)

## [Applications]

- Cleaning of oil stains on machines in factory
- Degreasing and cleaning of machined parts
- Cleaning of molding die components
- Cleaning of oil stains on kitchen equipment and tile floor.



4kg • 18kgQB

## [How to use]

Please use it by diluting with water, depending on degree of stains.

Indications of diluting:

Undiluted solution to 50 times for factory machines and processing parts. Undiluted solution to 30 times for cleaning of molding die conponents.

10 times to 50 times for cleaning of kitchen.

## [Note]

Please read and understand the Safety Data Sheet (SDS) before using.

Please wear the rubber gloves to use for longer time.

This product may damage painted surface depending on dilution ratio. So, a pretest is recommendable.

Distributor





## Anti-Corrosive Additive for Wire EDM

# HYPROS HYP-AD3

#### Product features:

HYP-AD3 protects metal-work piece from corrosion during WEDM process, by adding AD3 solution in water of WEDM tank. It also prevents sludge and patina from adhering to WEDM. Successful result is available by adding a little amount of HYP-AD3 that will not cause stickiness in water and also a bad effect to a processing electrical condition of WEDM.

## Properties:

- · Main components: Non-Ionic organic acid salt.
- · Color: Colorless or light yellow liquid
- pH: 5.2 (Stock solution) Density: 1.16 (20 degree C)

## Application:

- Preventive of rust and corrosive during WEDM process.
- Preventive of causing patina.
- Removal of sludge in pipeline of WEDM and also preventive of sludge adhering to the pipeline.



6 L · 20 L

#### How to use:

Add HYP-AD3 solution in the water of WEDM tank by 0.1% to 0.3% of the tank capacity and then mix evenly. Circulate the mixed water in WEDM for 30 minutes, without an ion-exchange resin lines.

○200L tank/600cc ○ 300L tank/900cc ○400L tank/1,200cc ○500L tank/1,500cc ○600L tank/1,800cc ○700L tank/2,100cc

The effect will weak gradually depending on length of operation time. Pour to add HYP-AD3 solution into the WEDM tank by 1/10 of the initial added amount, when rust is found on the metal-work piece.

#### Note:

Please read and understand the Safety Data Sheet (SDS) before use.





Water-soluble rust preventive for aluminium, iron and non-ferrous metal

# **HYP-AL1**

## [Features]

HYP-AL1 is a water-soluble rust preventive that can be used for aluminium, iron and copper alloys. It is a cost effective agent that can be diluted with water (1 in 40 to 70). It can also be used as an additive to prevent discoloration when machining aluminium with a water-soluble machining fluid. It does not form bubbles, and is an effective agent for preventing rust and discoloration when cleaning materials with shower.

## [Properties/components]

Major component: organic amine salt Color: light yellow Ph: 6.7 to 7.7 (1%) Specific gravity: 1.08 (20°C)

## [Intended use]

- Discoloration prevention for aluminium between processes
- Temporary rust prevention for steel, cast iron and copper alloys
- Additive when machining aluminium with a water-soluble coolant
- Additive for cleaning fluid

## [How to use the product]

- When using HYP-AL1 as a rust preventive
  - Apply the agent diluted 1 in 40 to 70 with water by immersion or spraying. After 30 seconds from the surface application or immersion, perform air-blow.
  - The rust preventive effect lasts about 1 to 2 weeks in a room. \* Depending on the environment, the period may be shorter.
- When using HYP-AL1 as an additive for a water-soluble machining fluid Add this agent at a concentration of 0.2 to 0.5% (400 to 1000cc per 200L) of the coolant. First, add the agent at a concentration of 0.2%. If the effect is insufficient, add the agent again to reach a concentration of 0.5%.

When to add the additional agent depends on usage conditions.

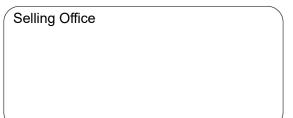
#### [Cautions]

Depending on the material, this agent may cause discoloration. Check for discoloration in advance by using offcuts.

Be sure to read the safety data sheet before using this agent.

When the agent is used as a discoloration preventive for a water-soluble coolant, test the agent with a bench test before using it.

Store this agent in a cold and dark place away from direct sunlight.



Total sales agency



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Kobe sales office:6-9

Kobe Fashion Mart 6C-08, Koyocho-naka, Higashinada-ku, Kobe-shi, Hyogo Pref,658-0032, Japan

Fukuoka sales office:1655-5

Netabi, Koga-shi, Fukuoka Pref, 811-3123, Japan

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4kg/18kg

## Rust removal agent (Odorless type)

# HYPROS HYP-R1S

#### Product features:

HYP-R1S is a rust removal agent containing phosphoric acid. This specialty product does not generate foreign odor and harmful gases by reaction with metal ions. Any tackiness is not felt on surface of metal parts after washing with water. HYP-R1S can be used safety because there is not flammability and explosion risk. Also cost reduction benefit is available because it can be diluted with water.

## Properties:

- · Main components: Phosphoric acid.
- · Color: Colorless or light yellow liquid
- pH: 1.9 (1%)
- · Density: 1.17 (20 degree C)

## Applications:

- · Rust removal after WEDM finish process.
- · Removal of rust and oxide film on metal parts surfaces.
- · Applicable to: Steel, Stainless steel, etc.



How to use:  $6 \, \mathsf{L} \cdot 20 \, \mathsf{L}$ 

Dilute stock solution with clean water by 10 times, and then immerse the metal parts in a container. Recommendable immersing time is within 10 minutes. After removal of rust, rinse the parts with water immediately. Then take action for neutralization or anti-rust treatment.

Replace the entire of the used old diluted solution with new one without adding poured, when discoloration is found in the solution or on the metal parts surface. Plus pouring will cause reduction of ability of new diluted solution.

Also, remove materials accumulated on the bottom of rigid plastics container, before replacing with new liquid.

## Note:

Discoloration may occur depending on materials of metal. So, recommend to pretest using test piece for making sure of no problem. For immersing, use a rigid plastics container. Especially, non-ferrous metals should be completed removal process of rust or oxide film in a short period of time as possible, because they are easily discolored.

Please read and understand the Safety Data Sheet (SDS) before use.



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# HYPROS HYP-R2S

#### Product features:

HYP-R2S is a rust and sludge removal agent containing phosphoric acid. This specialty product does not generate foreign odor and harmful gases by reaction with metal ions. Its high performance can be available by just wiping the metal surface, without washing with water, at finish process. Rust can be removed, without damage of metal parts surface, in a short time. HYP-R2S can be used safety because there is not flammability and explosion risk.

## Properties:

· Main components: Phosphoric acid. · Color: Green liquid • pH : 2.1 (1%) • Density: 1.11 (20 degree C)

## Applications:

- · Removal of sludge adhered on WEDM machine and Sinker machine.
- · Rust removal after WEDM finish process.
- · Removal of rust and oxide film on metal parts surfaces.



6 L · 20 L

## How to use:

HYP-R2S can be used by immerse or brush. For immersing, dilute stock solution with cle an water by 10 times. After removal of rust, wipe the liquid throughout by dry cloth.

Recommendable immersing time is within 10 minutes. After washing the parts with water, take action for neutralization or anti-rust treatment. Replace the entire of the used old diluted solution with new one without adding poured, when discoloration is found in the solution or on the metal parts surface.

Plus pouring will cause reduction of ability of new diluted solution.

Also, remove materials accumulated on the bottom of rigid plastics container, before replacing with new liquid.

#### Note:

Discoloration may occur depending on materials of metal. So, recommend to pretest using test piece for making sure of no problem. For immersing, use a rigid plastics container. Especially, non-ferrous metals should be completed removal process of rust or oxide film in a short period of time as possible, because they are easily discolored.

Please read and understand the Safety Data Sheet (SDS) before use.



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URL: http://www.kk-nmc.jp

Non-ferrous metal parts · Neutral type rust removing agent for general steel materials · Oxide film removing agent (For immersing)

# HYP-R4 (Neutral type)

## [Product features]

HYP-R4 is a neutral (pH: 7.5) cleaning agent.

HYP-R4 enables to remove oxide film of sensitive non-ferrous metal and to clean stains.

HYP-R4 doesn't produce any harmful gas and human, it's an environmental friendly cleaning agent.

As HYP-R4 has no Hydrogen embrittlement risk, it is best used for removing rust of precision parts and the products.

HYP-R4 is a product with minimal discoloring impact to general metals including non-ferrous metals. (Brass: Not tarnished 50 hours after immersing.)

## [Properties]

· Main component : Reducing agent, Chelating agent

Color : Clear, Colorless liquid

• pH : 7 .5 (Representative value)

Specific gravity : 1.028 (25°C)

## [Application]

• Removal of oxide film from non-ferrous metal (Immersing cleaning)

As a rust-removing agent (Immersing cleaning)

## 4L / 20L

## [How to use]

Use the immersing in stock solution.

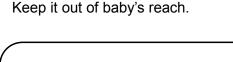
After cleaning, cleanse away residue with water.

If recurrence of rust easily appears to a material, apply rust-proof treatment.

Use a hard-plastic container.

#### [Note]

Be sure to read the Safety Data Sheet (SDS) before using.





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## Water-Soluble Rust Inhibitor & Neutralizer

# HYPROS HYP-W50

#### Product features:

HYP-W50 is a water-soluble rust inhibitor that can be diluted by water, and so a cost reduction benefit is available. This specialty product also can be used as a neutralizer after process of acid cleaning.

## Properties:

- · Main components: Organic acid amine salt
- · Color: Colorless or light yellow liquid
- pH: 10.7 (Stock solution) Density: 1.02 (20 degree C)

## Applications:

- · Short term rust inhibitor for machined metal parts such as iron and steel.
- · Neutralizer and short term rust inhibitor after process of acid cleaning.
- · Anti-corrosive additive for cooling tower pipelines, etc.



4 L • 20 L

## How to use:

For rust inhibitor by immerse or spray; Dilute 20 to 50 times by water. Then, use the diluted solution by immerse or spray. Metal parts can be protected from rust for one to two weeks.

For neutralizer after process of acid cleaning by HYP-R1S, etc.; Dilute 20 times by water. Replace the used old diluted solution with new one on a regular basis, because neutralizing power will weak to depend on use.

## Note:

Discoloration may occur depending on materials of metal. So, it is recommendable to pre test using test piece for making sure of no problem.

Please read and understand the Safety Data Sheet (SDS) before use.



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Rust Preventive Oil

# Nk-3000NS

oleaginous



# Special technology for Metal Super rust inhibitor

Capacity: 4L / 16 L

## Characteristic/Usage

- Strong water displacement power for metal.
- Displace moisture from treated surfaces and generate soft oil film.
- •Generate uniform film (5µ).
- \*It is easy to remove the oil film with water-soluble degreasing cleaner.
- Excellent moisture displacing property and prevent oil stain.
- Less odor and good for apply by splay or dip.
- **\*\*This solution is able to spray into the HP AIR SPRAY or AIR SPRAYING SYSTEM. Please read the directions on the reverse side of this paper.**
- Low viscosity and excellent workability.
- •This oil can be applied to steel stock, metallic mold and work piece.

#### \*\*Refilling spray system : Please read the reverse side.

- \* Avoid the use of aerosol and effort to environment concern.
- \* Reduse the garbage cans, Reuse package refilling system.
- \* We have a proposal for various filling system and aerosol system.
- ★Please refer material safety data sheet before using our products.
- ★Improved in this model is subject to change without notice.

NMC Co.,LTD. TEL No.+81-42-345-1347 FAX No.+81-42-345-1527 E-mail:nmc@kk-nmc.jp -DEALER-

Water-soluble powerful cleaning agent for cleanup

## **Nk-FINE CLEANER**

# With sterilization effect

## [Features]

Nk-FINE CLEANER removes various types of oil stains, such as stubborn machine oils, animal and vegetable oils, with excellent permeating ability and degreasing power. It is a cost-effective cleaner that can be used after being diluted with water.

Nk-FINE CLEANER contains "alkylamine oxide", a surfactant that the Japanese Ministry of Economy, Trade and Industry announced as having a sterilization effect on COVID-19, at a concentration of 0.56%. •Effective concentration for sterilization: 0.05% or above Refer to this URL: https://www.meti.go.jp/english/press/2020/0529 001.html

## [Properties/components]

Color: colorless transparent liquid pH: 12.5 (undiluted solution)
Surfactants, water and others

## [Intended use]

- Removal of oil stains on machines in plants
- Sterilization and cleaning in plants, offices and other facilities
- Cleanup inside offices
- Removal of oil stains on apparatus and tile floors in kitchens

# No. 77 (201)—7— The state of t

16L

## [How to use the product]

Use this cleaner by diluting it with water to appropriate concentration according to the degree of stain.

Standard concentration: undiluted to 10-fold diluted for plant machines, 10- to 50-fold diluted for offices

- \* To maintain the sterilization effect announced by the Ministry of Economy, Trade and Industry, use up to 10-fold diluted solution.

  After 20 to 60 seconds passed after applying the cleaner, wipe it off with a wet or dry
- \* Soak and wash the waste cloth used for wiping in 10-fold diluted solution.

## [Cautions]

cloth.

Make sure to read through "Safety Data Sheet" for the product before using it.

Keep it out of the reach of babies and young children.

Wear rubber gloves when you use it for a long period of time.

When the cleaner is applied to a painted surface, test the cleaner in advance to confirm that the painting does not peel off.

Selling Of	fice		

Total sales agency

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Head Office:4-14-27

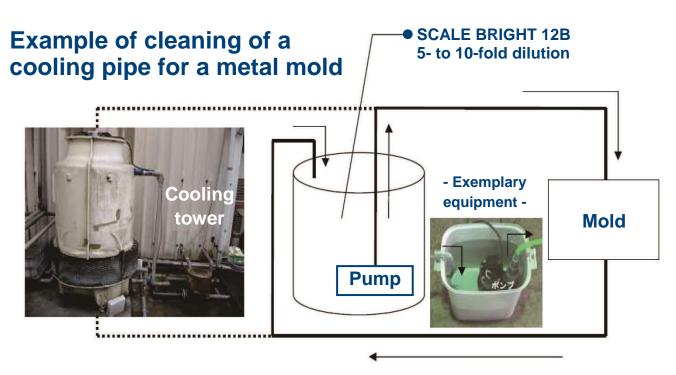
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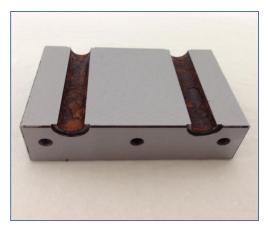
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## Cleaning of a cooling pipe for resin/die-casting mold



- \* The dotted line ( · · · · · · · ) above indicates a regular circulation route.
- (1) Dismount the mold and clean the pipe as usual.
- (2) Install bypass piping, and start removing scale/rust inside the cooling pipe using SCALE BRIGHT 12B.
  - \* For removal of mild degree of rust/scale, dilute the product 10-fold with water. For heavy rust/scale, dilute it 5-fold. Circulate the diluted solution through the pipe for 5 to 10 hours.
- (3) Drain the SCALE BRIGHT 12B solution from the cooling pipe, and rinse the internal surface of the pipe with water. No neutralization treatment is required.
- (4) Once the pipe cleaning is completed, it is ready for connecting to a molding machine.
  - \* Rustproof the cleaned surface if the pipe is to be kept unused for a long period of time.



Longitudinal section of cooling pipe before cleaning





Longitudinal section of cooling pipe after cleaning

## Safe scale remover made of food additives

## NMC SCALE BRIGHT 12B

## [Features]

SCALE BRIGHT 12B is a cleaner product with excellent scale decomposition and rust removing performance.

Mainly composed of food additives, it is safe for users.

It can be used to remove scale/rust on an object containing both steel and copper components.

No neutralization treatment is required after cleaning.

## [Properties/components]

Color: colorless transparent liquid, pH: 3.5 (undiluted solution, representative value)

Citrate, surfactants, chelators, water, and others

## [Intended use]

- · Removal of scale on pipes
- Removal of rust on iron, cooper, and copper alloy objects



4, 10, or 20 kg package available

## [How to use the product]

For removal of scale/rust on a pipe: Dilute it 5- to 10-fold with water and circulate the solution for 5 to 10 hours. After completing the scale/rust removal process, rinse the internal surface of the cooling pipe with clean water.

For immersion: Use undiluted solution or up to 5-fold diluted solution.

No neutralization treatment is required after cleaning. No rust will be formed on the cleaned surface shortly after rinsing it with water and drying it.

\* Rustproof the cleaned surface, as needed.

## [Cautions]

Make sure to read through "Safety Data Sheet" for the product before using it.

Keep it out of the reach of babies and young children.

Wear rubber gloves when you use it for a long period of time.

When it is used for immersion for a long period of time, it may tarnish a metal surface. Therefore, it is recommended to test a left-over piece of the metal or the like with the solution, in advance.

Distributor	
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