

Instruction

【Measure for Safety】

Wear protective gloves.
Wash thoroughly after handling.
Wear eye / face protection.

【First Aid】

IF ON SKIN:

Wash with plenty of soap and water.
Take off contaminated clothing and wash before re-use.
If skin irritation occurs, seek medical advice / attention.

IF IN EYES:

Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists, get medical advice / attention.
Wash hands after handling.

【Storage】

Store locked up.

【Disposal】

Dispose of contents/container in accordance with local/regional/international regulation.

Country / Community Information: No data

3. COMPOSITION AND INGREDIENT INFORMATION

Single, Mixture: Mixture
Ingredient and content

Ingredient name	CAS No.	Concentration (wt%)
Ammonium Hydroxide	1336-21-6	< 1.5 (Silver) < 1.0 (Gold, Copper)
Aluminum flake	7429-90-5	≤ 12
Propylene glycol mono methylether	107-98-2	4.0 - 6.0
Phosphoric acid	7664-38-2	≤ 0.2
Water	7732-18-5	≥ 80

4. FIRST AID

For Inhale:

Remove the victim to the fresh air area. If feel bad, see a doctor.

For Skin:

Put off the all polluted clothes immediately. Clean with the proper temp. and slow flowing water for over 15 minutes. If have irritate the skin, see a doctor. Call a doctor if feel bad. Before re-use the put off clothes, clean it up and remove the pollution.

For Eyes:

Put off the contacts if possible, and continue to clean. Clean the eyes carefully for a few minutes. If the eyes get this product, clean the eye immediately and wash away completely. If the cleaning eyes not enough, it may cause irreversible eye damage.
If irritate to the eyes continue, see a doctor.

For Swallow:

Call a doctor, if feel bad. Rinse the mouth out. Do not have the victim vomit.

Expected acute symptom and late symptom:

Sialorrhea, face flash, cough, dizzy, lethargy, headache, sore throat, deliquim animi barf, vomition

Most important sign and symptom:

No data

Protect the person received first aid:

Rescuer must wear proper protective equipment according to the situation.

Special notandum for doctor:

Symptom will appear later, so that if the patient exposed excessively, it needs medical follow progress.

5. FIRE-FIGHTING MEASURE

Extinguishing Media: Small fire / Carbon dioxide, dry chemical extinguishing media, water spray, alcoholic resistance foam.

Great Conflagration: Water spray, mist water, alcoholic resistance form.

Forbidden Extinguishing Media:

Cylindrical pouring water.

Special Dangerous and Harmful Effect:

The irritative, toxicity and corrosive gas is generated by fire. The container will be burst by heating. If it is not dangerous, move the container from the fire area.
If it is impossible to move, cool the container and around by spraying water. After extinguishing a fire, cool the container completely by large quantity of water.

Protect the Person Extinguish a Fire:

For fighting fire, wear compressed air open-circuit SBCA and protect equipment for chemical.
Fight a fire from up wind.

6. ACCIDENTAL RELEASE MEASURES**Notandum for Human Body, Protective Equipment and Emergency Measure:**

The worker must wear proper protector (refer to section 8) not to get the paint on the skin or into eyes. Do not touch the leakage material or walk into it. Keep the proper distance in all direction as the leakage area immediately. No unauthorized entry. If leakage but not occur a fire, wear the occlusive and impervious protect wear. Stay in the wind. Move away from the low ground.
Ventilate before enter the sealed area.

Notandum for Environment:

Prevent from influx into the drain ditch, sewer, basement and closed area.
Take notice not to affect the environment by discharge the paint into the river.

Collect Neutralization:

In small quantity case, absorb the leakage material by dry sand and nonflammable material or collect it in the sealed type container then dispose it. In small quantity case, collect the absorbed material by clean antistatic tools. In large quantity case, yard the leakage material by mound to prevent flow out and lead it into safety area then collect it. In large quantity case, water spray lower the steam temperature but it may not inhibit combustion at the sealed area.

Containment or Depurant and Equipment:

If it is not danger, stop the leakage. Ground all equipment which need for handle the leakage material. Use steam retard foam for lower the steam concentration.

Precaution of Second Disaster:

Clear away all ignition source immediately (Do not smoking near around, forbid firework and flame)
In case large steam generating, retard it by mist spray. Call related agency and ask the help.

7. HANDLING AND STORAGE**Handling**

Do the equipment measure described on the section 8 and wear protector.

Local exhaust ventilation, whole ventilation:

Do the local exhaust ventilation and whole ventilation described on section 8. Prevent leakage the liquid and steam as possible.

Safe handling notandum:

This product irritate the eyes so that care not to get it into the eyes. This product may cause sleep or vertigo, irritate the apparatus respiratorius and damage organ parts so that do not touch, inhale and swallow it. Do not fall, drop, shock or drag the container. Clean hands well after use this product. Use this product outside or well ventilated area only. Avoid touching, refer to the section10.

Keep away from high temperature materials spark and fire, and avoid touching oxidizer and organic peroxide.

Storage

Keep the container airtight and stock it in well ventilated place. Stock in the fulfilled and ventilated and cool place. Keep away from oxidant. Keep away from direct sunlight and fire. The inventory location must be fire-proof construction and the floor must be impermeable to prevent permeate the basement and spill to outside. Lock up the container.

Dangerous goods if mixed:

Refer to the section 10.

Container material:

Use the container regulated by fire law and UN transportation law.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Install the eyewashing devices and safety shower where handle or stock this product.

Protection Equipment**For apparatus respiratorius:**

Wear proper respiratory protect equipment such as gas mask for organic gas (if high concentration, wear air-supplied respirator).

For hands: Wear the gloves designated by manufacturer.
 For eyes: Wear the eye protector designated by manufacturer.
 For skin and Body: Wear protect boots, oil resistant apron (impermeable and antistatic) and protect clothes (antistatic) designated by manufacturer.

Hygiene Measure

Check the protect equipments regularly with check sheet. Clean hands well after use this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Properties	Condition (20°C)	Liquid
	Odor	Characteristic odor
	Boiling point	No data
	Vapor pressure	No data
	Specific gravity (20°C)	No data
	pH (against water base)	No data
	Other	No data
Hazardous Information	Flash point	No data
	Ignition point	No data
	Explosion limit	No data
Other Hazardous Information		No data

10. STABILITY AND REACTIVITY

Stability: Under usually storage condition, it is stable.
 Hazardous Reactivity: Nothing
 Avoid Condition: Nothing
 Avoid Touching: Nothing
 Hazardous Decomposition Product:
 Generates harmful gas such as carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Harmful ingredient and exposure limit.

Name	ACGIH (TLV)	IARC	OTHER
Ammonium Hydroxide	TWA 25ppm(NH ₃)	-	LD ₅₀ (oral, rat) 350 mg/kg
Aluminum flake	-	-	-
Propylene glycol mono methylether	-	-	LD ₅₀ (oral, rat) 5000 mg/kg
Phosphoric acid	-	-	LD ₅₀ (oral, rat) 1530 mg/kg

Other harmful information relevant to composition:

No data

Harmful information for product:

No data

12. ECOLOGICAL INFORMATION

Acute Hazardous Aquatic Environment:

No data

Inveteracy Hazardous Aquatic Environment:

No data

13. DISPOSAL CONSIDERATIONS

Residue Waste: For dispose, follow the related regulation and standard of local governments. Ask the licensed industrial waste disposal company or local governments.

For Burning: Spray the incinerator with waste liquid directly or mix with flammable solvent in small quantity to burn. Activated sludge process.

Polluted container and package:

Clean the container and recycle or treat it in accordance with the related regulation or local governments. If dispose the container, remove the content completely.

14. TRANSPORT INFORMATION

Common:	Please follow the section 7. Check if there are no leakage from container and take cargo without falling, dropping and damage.
Land Transportation:	In case of fall under the Fire Law, Industrial Safety and Health Law, Poisonous Material Control Law follow each relevant mode of transportation.
Marine Transportation:	Please follow the Law for Safety of Vessel.
Air Transportation:	Please follow the Aviation Law and regulation of ICAO.
UN No.	N/A
Packing group	N/A

15. REGULATORY INFORMATION

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. OTHER INFORMATION

Main cited item

JPMA "Data Base for raw material MSDS"
JPMA "MSDS Guide Book [Mixture (for paint)]" 4th version
JPMA "MSDS Guide Book [Mixture (for paint)]" 4th version-addenda version
Solvent pocket book
Raw material manufacturer SDS

Regarding to the description content:

The description content of this data sheet is based on the documentation, information and data that we can garner at the present moment so that it might be change depend on new information. And it is recommend for usual handling so that in case of special handling, use it before take safety measure that suitable for your application and usage.

The description content is information service and not certification.

N/A = Not Applicable