



Safety instruction

For the SM-6 developer and PBU-Amidol Bleach containing chemicals
Before starting to work with the chemicals, please, read this safety instruction for each of the chemicals very carefully !

DO NOT SWALLOW OR GET IN SKIN OR EYE CONTACT WITH ANY OF THE CONTAINING CHEMICALS ! USE SAFETY GLOVES !

1. Sodium Hydroxide NaOH

Physical properties	Form: White semi-transparent solid, often supplied as pellets weighing about 0.1g Stability: Stable, but hygroscopic. Absorbs carbon dioxide from the air. Melting point: 318 C Water solubility: high (dissolution is very exothermic) Specific gravity: 2.12
Principal hazards	Contact with the eyes can cause serious long-term damage The solid and its solutions are corrosive Significant heat is released when sodium hydroxide dissolves in water
Safe handling	Always wear safety glasses. Do not allow solid or solution to come into contact with your skin. When preparing solutions swirl the liquid constantly to prevent "hot spots" developing.
Emergency	Eye contact: Immediately flush the eye with plenty of water. Continue for at least ten minutes and call for immediate medical help. Skin contact: Wash off with plenty of water. Remove any contaminated clothing. If the skin reddens or appears damaged, call for medical aid. If swallowed: If the patient is conscious, wash out the mouth well with water. Do not try to induce vomiting. Call for immediate medical help
Disposal	Small amounts of dilute sodium hydroxide can be flushed down a sink with a large quantity of water, unless local rules prohibit this. Larger amounts should be neutralised before disposal.
Protective equipment	ALWAYS wear safety glasses when handling sodium hydroxide or its solutions. If you need gloves, neoprene, nitrile or natural rubber are suitable for handling solutions at concentrations of up to 70%

2. Methyl Phenidone C₆H₅-C₃H₅N₂O

Physical properties	Appearance: light beige powder or crystals Melting point: 122 C
Stability	Stable, but light sensitive. Incompatible with strong acids, strong oxidizing agents, strong bases.
Toxicology	Harmful by inhalation and ingestion. May be harmful through skin contact. May act as an irritant. Toxicological properties not fully investigated.
Personal protection	Safety glasses and adequate ventilation.

3. Ascorbic acid CH₂OHCHOH(CHCOH:COHCOO)

Storage	Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air. Store protected from light. Store under an inert atmosphere.
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Handling	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Store protected from light. Handle under an inert atmosphere. Store protected from air.
Protection	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin.
Respirators	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.
Small spills/leaks	Clean up spills immediately, using the appropriate protective equipment. Avoid generating dusty conditions. Carefully scoop up and place into appropriate disposal container. Provide ventilation. Place under an inert atmosphere.
Stability	Stable at room temperature in closed containers under normal storage and handling conditions.
Incompatibilities	Oxidizing agents.
Decomposition	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Other hazards	In concentrations greater than 100 mg/ml, ascorbic acid may undergo decomposition with the production of carbon dioxide. Since increased pressure may develop after prolonged storage, ampuls containing ascorbic acid injections should be opened carefully.

4. Sodium Phosphate (dibasic) Na_2HPO_4

Physical properties	Appearance: white granular powder; Vapour density: 4.9; Specific gravity: 1.679
Stability	Stable. Incompatible with strong acids. Hygroscopic.
Toxicology	Eye and skin irritant. May be harmful if ingested in quantity.
Personal protection	Handle with care.

5. Potassium persulfate $\text{K}_2\text{S}_2\text{O}_8$

Storage	Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a cool, dry place. Keep containers tightly closed.
Handling	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation.
Protection	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear a chemical apron. Wear appropriate clothing to prevent skin exposure.
Respirators	Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.
Small spills/leaks	Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, using the appropriate protective equipment. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Stability	Stable under normal temperatures and pressures.
Incompatibilities	Reducing agents.
Decomposition	Oxygen, oxides of potassium, sulfur oxides (SO _x), including sulfur oxide and sulfur dioxide.

6. Citric acid $\text{HOC}(\text{COOH})(\text{CH}_2\text{COOH})_2$

Storage	Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.
WHMIS	E - Corrosive material
Handling	Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Do not allow contact with water. Keep from contact with moist air and steam.
Protection	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators	Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
Small spills/leaks	Vacuum or sweep up material and place into a suitable disposal container. Very fine particles can cause a fire or explosion. Eliminate all ignition sources. Clean up spills immediately, using the appropriate protective equipment. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation. Spill may be neutralized with lime. Do not get water inside containers.
Stability	Stable under normal temperatures and pressures.
Incompatibilities	Oxidizing agents, sulfides (inorganic, e.g. ferric sulfide, lead sulfide, sodium sulfide), metal nitrates, alkali carbonates, alkalis, potassium tartrate, acetates, bicarbonates.
Decomposition	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Other hazards	Will attack some metals like brass or copper forming citrate complexes.

7. Cupric bromide CuBr_2

Storage	Store in a cool, dry place. Store in a tightly closed container.
Handling	Wash thoroughly after handling. Wash hands before eating. Use only in a well ventilated area. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.
Protection	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators	Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
Small spills/leaks	Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, using the appropriate protective equipment. Avoid

	generating dusty conditions. Provide ventilation.
Stability	Stable under normal temperatures and pressures.
Incompatibilities	Moisture, potassium, and alkali metals.
Decomposition	Irritating and toxic fumes and gases, hydrogen bromide, copper fumes.
Other hazards	Moisture sensitive.

8. Potassium bromide KBr

Storage	Store in a cool, dry place. Store protected from moisture.
Handling	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes. Do not ingest or inhale.
Protection	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin.
Respirators	Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
Small spills/leaks	Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation. Do not expose spill to water.
Stability	Stable under normal temperatures and pressures.
Incompatibilities	Strong oxidizing agents; strong acids; heavy metal salts Reacts violently with bromine trifluoride.
Decomposition	Hydrogen bromide, oxides of potassium.

9. Amidol $(\text{NH}_2)_2\text{C}_6\text{H}_3\text{OH}\cdot 2\text{HCl}$

Storage	Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.
Handling	Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Do not ingest or inhale.
Protection	Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators	Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
Small spills/leaks	Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions.
Stability	Stable under normal shipping and handling conditions.
Incompatibilities	Strong oxidizing agents.
Decomposition	Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide.

Afterall, If you have any questions, comments or obscurities, please visit our website at <http://www.geola.com> or contact us by e-mail info@geola.com