

Material Safety Data Sheet

PRODUCT NAME	PAGE
SS-COAT 909	(1 / 8)

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identity (Trade Name As Used On Label); SS-COAT 909

Recommended use of the chemical and restrictions on use; SILVER ZINC COATING

Manufacturer Name /Address;

NAMBANG CNA CO., LTD. / 392-3 Chupal-ri, Paengsung-Eup, Pyongtaek-si,
Kyonggi-do, KOREA 451-805

TEL : 82 31 651 5911~8 FAX : 82 31 691 6441 / 82 31 658 6441

Date Prepared; May. 30. 2008



SECTION 2. HAZARD IDENTIFICATION

Hazard Class

Hazard Class	Hazard category
Flammable aerosols	1
Acute toxicity (Inhalation)	4
Skin corrosion/irritation	2
Serious eye damage/eye irritation	2A
Toxic to reproduction	1A
Specific target organ systemic toxicity (single exposure)	1(Central nervous system)
Specific target organ systemic toxicity (single exposure)	3(Respiratory tract irritation, Narcotic effects)
Specific target organ systemic toxicity (repeated exposure)	1(Central nervous system, kidney, liver)
Aspiration hazard	1

GHS label elements, including precautionary statements

Category	Indication
Symbol	
Signal word	Warning
Hazard statement	<ul style="list-style-type: none"> - Extremely flammable aerosol. - Harmful if inhaled. - Causes skin irritation. - Causes serious eye irritation. - May damage fertility or the unborn child. - (Central nervous system) Causes damage to organs.

		<ul style="list-style-type: none"> - May cause respiratory irritation. - May cause drowsiness or dizziness. - Causes damage to organs (Central nervous system, kidney, liver) through prolonged or repeated exposure. - May be fatal if swallowed and enters airways
Precautionary statements	Prevention	<ul style="list-style-type: none"> - Keep away from heat/sparks/open flames/hot surfaces. -No smoking. - Do not spray on an open flame or other ignition source. - Pressurized container: Do not pierce or burn, even after use. - Avoid breathing dust/fume/gas/mist/vapours/spray. - Use only outdoors or in a well-ventilated area. - Wash ... thoroughly after handling. - Wear protective gloves. - Wear eye protection/face protection. - Obtain special instructions before use. - Do not handle until all safety precautions have been read and understood. - Use personal protective equipment as required. - Do not breathe dust/fume/gas/mist/vapours/spray. - Do not eat, drink or smoke when using this product.
	Response	<ul style="list-style-type: none"> - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - Call a POISON CENTER or doctor/physician if you feel unwell. - IF ON SKIN: Wash with plenty of soap and water. - Specific treatment (see ... on this label). - If skin irritation occurs: Get medical advice/attention. - Take off contaminated clothing and wash before reuse. - 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. - IF exposed or concerned: Get medical advice/attention. - IF exposed: Call a POISON CENTER or doctor/physician. - Get medical advice/attention if you feel unwell. - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. - Do NOT induce vomiting.
	Storage	<ul style="list-style-type: none"> - Protect from sunlight. Do not expose to temperatures exceeding 50 °C. - Store locked up. - Store in a well-ventilated place. Keep container tightly closed.
	Disposal	<ul style="list-style-type: none"> - Dispose of contents/container to.....(in accordance with local/regional/national/international regulation).

Other hazards which do not result in classification :

Ingredients	NFPA Rating	Health	Flammability	Reactivity
Silver Zinc		-	-	-
Toluene		2	3	0
Dian-Epichlorohydrin polymer		2	1	0

PRODUCT NAME SS-COAT 909	PAGE (3 / 8)
-----------------------------	-------------------

Dimethyl ether	2	4	1
----------------	---	---	---

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	%*	Hazardous
Silver Zinc	-	-	25~35
Toluene	-	108-88-3	20~30
Dian-Epichlorohydrin polymer	-	25068-38-6	10~15
Dimethyl ether	-	115-10-6	25~35

SECTION 4. FIRST AID PROCEDURES

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. CALL A PHYSICIAN IMMEDIATELY.

Ingestion : Aspiration hazard. If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately. If vomiting occurs, keep head below hips to prevent aspiration into lungs.

Skin Contact : In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician immediately.

Eye Contact : Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media; Dry chemical, foam or carbon dioxide. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

Specific hazards arising from the chemical; No information found

Special protective equipment and precautions for fire fighters; In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

SECTION 7. HANDLING AND STORAGE

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits;

Toluene :

TWA : 100 ppm, 375 mg/m³

STEL : 150 ppm, 560 mg/m³

200 ppm OSHA TWA

50 ppm ACGIH TWA (skin)

Dimethyl ether :

1900 mg/m³ (1000 ml/m³) DFG MAK

1000 ppm AIHA (TWA)

Ventilation System; A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Respiratory Protection; A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Eye Protection ; Use chemical safety goggles and/or a full face shield where splashing is possible.

Maintain eye wash fountain and quick-drench facilities in work area.

Protective Gloves; Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Other Protective Clothing and Equipment; Lab coat, eye wash, and safety shower.

Hygienic Work Practices; Wash hands with soap and water after use and/or before breaks, lunch and at the end of work periods. Remove contaminates clothing and laundry before reuse.

SECTION 9. PHYSICAL / CHEMICAL CHARACTERISTICS

Appearance; Silver gray

Odor; Solvent odor

Odour threshold; No information found

Ph; No information found

Melting point/freezing point; No information found

Initial boiling point and boiling range; No information found

Flash point; -41 °C (Dimethyl ether)

Evaporation rate; No information found

Flammability (solid, gas); No information found

Upper/lower flammability or explosive limits; 3.4 / 27.0% (Dimethyl ether)

Vapour pressure; No information found

Vapour density; No information found

Specific Gravity (H₂O = 1) : 0.97 ± 0.05

Relative density; No information found

Solubility(ies); Insoluble

Partition coefficient: n-octanol/water; No information found

Auto-ignition temperature; No information found

Decomposition temperature; No information found

Viscosity : No information found

Molecular Weight; No information found

SECTION 10. STABILITY AND REACTIVITY

STABILITY : Stable under ordinary conditions of use and storage

Hazardous Polymerization: Will not occur.

Conditions to Avoid : Heat, flames, ignition sources and incompatibles

Incompatibility (Materials to Avoid) : Strong oxidizers.

Hazardous Decomposition Products : carbon oxide

SECTION 11. TOXICOLOGICAL INFORMATION

- Dian-Epichlorohydrin polymer -

Acute toxicity;

- Oral ; No information found

- Dermal ; No information found

- Inhalation ; No information found

Skin corrosion/irritation; No information found

Serious eye damage/irritation; No information found

Respiratory or skin sensitization; No information found

Carcinogenicity; No information found

Germ cell mutagenicity; No information found

Reproductive toxicity; No information found

Specific target organ toxicity (single exposure); No information found

Specific target organ toxicity (repeated exposure); No information found

Aspiration hazard; No information found

Hazardous to the aquatic environment; No information found

- Toluene -

Acute toxicity;

- Oral ; LD50 3914 mg/kg (rat)

- Dermal ; LD50 14100 ul/kg (rabbit)

- Inhalation ; LC50 49 g/m³/4H (rat)

Skin corrosion/irritation; 2

Serious eye damage/irritation; 2A

Respiratory or skin sensitization; No information found

Carcinogenicity; No information found

Germ cell mutagenicity; No information found

Reproductive toxicity; 1A

Specific target organ toxicity (single exposure); 1(Central nervous system), 3(Respiratory tract irritation,
Narcotic effects)

Specific target organ toxicity (repeated exposure); 1(Central nervous system, kidney, liver)

Aspiration hazard; 1

Hazardous to the aquatic environment; No information found

– Dimethyl ether –

Acute toxicity;

– Oral ; No information found

– Dermal ; No information found

– Inhalation ; LC50 308 g/m³ (rat)

Skin corrosion/irritation; No information found

Serious eye damage/irritation; No information found

Respiratory or skin sensitization; No information found

Carcinogenicity; No information found

Germ cell mutagenicity; No information found

Reproductive toxicity; No information found

Specific target organ toxicity (single exposure); No information found

Specific target organ toxicity (repeated exposure); No information found

Aspiration hazard; No information found

Hazardous to the aquatic environment; No information found

SECTION 12. ECOLOGICAL INFORMATION

Toxicity; No information found

Persistence and degradability; No information found

Bioaccumulative potential; No information found

Mobility in soil; No information found

Other adverse effects; No information found

SECTION 13. DISPOSAL CONSIDERATION

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14. TRANSPORT INFORMATION

PRODUCT NAME SS-COAT 909	PAGE (8 / 8)
-----------------------------	-------------------

Proper Shipping Name Aerosol Class No 2

UN-NUMBER : UN 1950

SECTION 15. REGULATORY INFORMATION

Follow all regulation in your country

SECTION 16. OTHER INFORMATION

This information has been faithfully prepared on the basis of various knowledge and information and is not to guarantee the quality of this product. Also, this information can be changed without prior notice in accordance with introduction of new knowledge and test results, etc. For inquiries, please contact us or the place of product purchase.