Material Safety Data Sheet

Corrosion Preventive Compound

HANVAL INC.

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TECTYL 891D

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: TECTYL 891D
General or Generic ID: PETROLEUM BASED RUST PREVENTIVE

Company
HANVAL INC.
13th Floor, KSCFC Bldg 395-70 Shindaebang-Dong Dongjak-Ku, Seoul, Korea

Telephone Numbers : 82-2-3284-3381-2
FAX Number : 82-2-3284-3399

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
ASPHALT	8052-42-4	40.0-50.0
MINERAL SPIRITS	64742-47-8	48.0-55.0
CALCIUM PETROLEUM SULFONATE	61789-86-4	0.0-9.0

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3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause eye irritation. Additional symptoms of eye exposure may include: blurred vision

Skin
May cause mild skin irritation. Prolonged or repeated contact may dry and crack the skin.

Swallowing
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts

may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation
Breathing of vapor or mist is possible.

Symptoms of Exposure
stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness

Target Organ Effects
Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans, and may aggravate preexisting disorders of these organs: central nervous system effects.

Developmental Information
No data

Cancer Information
The International Agency for Research on Cancer (IARC) has determined there is sufficient evidence for the carcinogenicity of extracts of steam-refined bitumen, air-refined bitumen and pooled mixtures of steam- and air-refined bitumen in experimental animals. Asphalt products, properly handled as outlined in this MSDS, are not expected to cause cancer in humans. Skin contact, breathing of mist, fumes or vapors should be reduced to a minimum to avoid any ill effects.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin contact.

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4. FIRST AID MEASURES

Eyes
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting.

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5. FIRE FIGHTING MEASURES

Flash Point

> 104.0 F (40 ℃) PMCC

Explosive Limit

(for component) Lower 1.0 Upper 6.0 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: calcium oxide, carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Wear a self-contained

breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating
Health - 1, Flammability - 2, Reactivity - 0

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6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

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7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred.

Storage
Not applicable

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety

glasses. Consult your safety representative.

Skin Protection
Wear resistant gloves such as: neoprene, nitrile rubber, To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

Respiratory Protections
If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines
Component

ASPHALT (8052-42-4)
ACGIH TLV 5.000 mg/m3 - TWA

MINERAL SPIRITS (64742-47-8)
OSHA VPEL 5.000 mg/m3 - TWA
ACGIH TLV 5.000 mg/m3 - TWA

OXYGENATED ALIPHATIC PETROLEUM FRACTION
No exposure limits established

CALCIUM PETROLEUM SULFONATE (61789-86-4)
No exposure limits established

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 270.0 F (132.2 C) @ 760.00 mmHg

Vapor Pressure
(for component) 10.000 mmHg @ 68.00 F

Specific Vapor Density
> 1.000 @ AIR=1

Specific Gravity
.900 @ 77.00 F

Liquid Density
    7.500 lbs/gal @ 77.00 F
    .900 kg/l @ 25.00 C

Percent Volatiles (Including Water)
    35.5   - 44.3   %

Volatile Organic Compounds (VOC) (Maximum)
    401.000 g/l
    2.800 lbs/gal

Evaporation Rate
    SLOWER THAN ETHYL ETHER

Appearance
    No data

State
    LIQUID

Physical Form
    HETEROGENEOUS SOLUTION

Color
    BLACK

Odor
    No data

pH
    Not applicable

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10. STABILITY AND REACTIVITY

Hazardous Polymerization
    Product will not undergo hazardous polymerization.

Hazardous Decomposition
    May form: calcium oxide, carbon dioxide and carbon monoxide,
    various hydrocarbons.

Chemical Stability
    Stable.

Incompatibility
    Avoid contact with: strong oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

No data

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12. ECOLOGICAL INFORMATION

No data

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13. DISPOSAL CONSIDERATION

Waste Management Information
Dispose of in accordance with all applicable local, state and federal regulations.

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14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101
DOT Description:
Not Regulated

Container/Mode:
CASES/SURFACE - COMBUSTIBLE EXCEPTION

NOS Component:
PETROLEUM NAPHTHA

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

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15. REGULATORY INFORMATION

US Federal Regulations
TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4
None

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden

Release of Pressure( )

SARA 313 Components - 40 CFR 372.65
None

International Regulations
Inventory Status
DSL (CANADA) The intentional ingredients of this product are listed.

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16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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