

# VONGUARD CLEANTEK



## MATERIAL SAFETY DATA SHEET (MSDS)

Issue Date: June 2026

### SECTION 1: Identification

- **Product Identifier:** Vanguard Cleantek VC-1 (Multi-Surface Concentrated Masterbatch Powder)
- **Formulation Reference:** VC-MSD
- **Recommended Use:** Upstream B2B raw material base engine. A dry concentrate core designed for uniform dilution by commercial facility managers and contract blenders to create liquid multi-surface cleaners (1 kg masterbatch powder = 50 liters of ready-to-use liquid concentrate).
- **Downstream Dilution Ratio:** 100 ml of the resulting liquid concentrate per 5 liters of water for standard consumer mopping applications.
- **Manufacturer Details:** Vanguard Cleantek - Reg. Office - 5-5-212/5/5A, Patel Nagar, Nampally Road, Hyderabad - 500001.
- **Emergency Contact Number:** +91 92908 17668

### SECTION 2: HAZARDS IDENTIFICATION

- **Classification:** Non-hazardous in diluted use solution. Dry powder concentrate is a mild irritant.
- **Signal Word:** WARNING (For Dry Concentrate Only).
- **Hazard Statements:**
  - H315: Causes mild skin irritation (prolonged contact with dry powder).
  - H319: Causes serious eye irritation (if dry powder/dust enters eyes).
  - H335: May cause respiratory irritation (if dust is inhaled during manufacturing).
- **Precautionary Statements:** Wear eye protection and a dust mask when handling bulk dry powder. Keep out of reach of children.

# VONGUARD CLEANTEK



## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

This formulation is a proprietary dry masterbatch chemical compound matrix. Per B2B trade secret standards, we withhold exact percentages and present them below as optimized composition ranges.

- Sodium Lauryl Sulfate (Anionic Surfactant): 35% - 45%
- Sodium Sulphate: 25%-35%
- Sodium Citrate (Water Softener / Chelator): 10% - 15%
- Magnesium Sulphate: 3% - 7%
- Sodium Carbonate: 1% - 5%
- Polyethylene Glycol (PEG 6000 - Levelling Agent): 1% - 5%
- Fragrance Profile: 1% - 5%
- Formaldehyde Solution: 0.1% - 1%
- Water Soluble Dye: 0.1% - 0.5%

## SECTION 4: First-Aid Measures

- Inhalation: Move the operator to fresh air immediately. If breathing distress or coughing occurs, seek medical consultation.
- Skin Contact: Wash immediately with running tap water. Remove dust-soiled garments. If localized redness or a rash develops, consult a physician.
- Eye Contact: Flush eyes open instantly with clean water for a minimum of 15 minutes. Safely remove contact lenses if applicable. Seek immediate emergency ophthalmic care.
- Ingestion: Clean mouth out thoroughly with water. Do not induce vomiting. Administer 1–2 glasses of water or milk to dilute the stomach contents. Contact a poison control center or physician immediately.

# VONGUARD CLEANTEK



## SECTION 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Use water spray, carbon dioxide ( $\text{CO}_2$ ), dry chemical powder, or appropriate alcohol-resistant foam lines.
- **Specific Chemical Hazards:** The powder matrix is inherently non-flammable. Under severe thermal destruction/fire scenarios, it can split to discharge irritating oxides of sulfur ( $\text{SO}_x$ ) and carbon oxides.
- **Special Firefighter Protective Gear:** Use standard full-body structural turnout clothing alongside positive-pressure self-contained breathing apparatus (SCBA).

## SECTION 6: ACCIDENTAL RELEASE MEASURES

- **Personal Safety Precautions:** Put on protective nitrile work gloves, sealed chemical safety goggles, and an anti-dust mask (N95 grade) to shield from airborne dust particles.
- **Environmental Protections:** Block large-scale raw powder quantities from entering municipal open waterways, rainwater storm basins, or municipal drainage lines.
- **Remediation Method:** Gently sweep up or vacuum the dry material into marked, secure recovery bins. Avoid spraying water over bulk dry powder spills to prevent instantaneous, heavy foaming actions.

# VONGUARD CLEANTEK



## SECTION 7: Handling and Storage

- **Handling Precautions:** Process in modern, ventilated areas. Avoid manual dumping techniques that create thick dust clouds. Avoid direct eye exposure and prolonged skin contact when handling raw ingredients.
- **Storage Requirements:** Keep stored inside heavy-duty, hermetically sealed moisture-barrier bags. Keep off cold floors and store them within dry warehouse racks protected from high relative humidity and acidic compounds. Storage temperature parameters: 5°C to 40°C

## SECTION 8: Exposure Controls / Personal Protection

### Exposure Limit Benchmarks

- **Formaldehyde (Preservative Component):** OSHA PEL: 0.75 ppm (TWA); ACGIH TLV: 0.3 ppm (ceiling).
- **Nuisance Dust Particles:** OSHA PEL: 15 mg/m<sup>3</sup> (total airborne concentration).

### Engineering Infrastructure Controls

- Utilize local mechanical extraction hoods directly over processing dump stations to maintain industrial dust limits below action thresholds.

### Personal Protective Equipment (PPE)

- **Eye Protection:** Sealed chemical safety goggles or clear side-shield goggles.
- **Skin Protection:** Industrial nitrile, PVC, or neoprene gloves; long-sleeved factory uniform coats.
- **Respiratory Protection:** N95 particulate dust masks during mass loading or dry ribbon blending cycles.

# VONGUARD CLEANTEK



## SECTION 9: Physical and Chemical Properties

All properties listed below are derived and validated directly from official NABL laboratory testing codes. MCAL/2026/1277A and MCAL/2026/1277B:

- **Physical Appearance:** Free-flowing, granular dry powder matrix
- **Odor:** Distinct clean/fresh fragrance profile
- **Visual Clarity / Appearance (0.5% Aqueous Dilution):** Clear homogeneous liquid (Verified via Visual Inspection, no sedimentation)
- **pH (0.5% Aqueous Solution @ 25°C):** 7.1 (Verified via pH Meter; Perfect Neutral range)
- **Active Matter Index:** 48.5% w/w (Verified via Two-Phase Titration surfactant engine)
- **Surface Compatibility:** Pass / No Etching (Verified via ASTM/Internal SOP; 100% safe for architectural surfaces)
- **Cleaning Efficiency Score (Soil Removal Index):** 92% Removal (Verified via Reflectance Method)
- **Heavy Metal Screening:** Within limits (Verified via ICP-OES spectroscopy)
- **Hard Water Calcium Binding Tolerance:** 430 ppm (Verified via Calcium Binding Test; stable in tough groundwater)
- **Bulk Density:** 1.03 g/cc (Verified via ASTM D1895; stable packing profile)
- **Solubility:** 100% Water Soluble

# VONGUARD CLEANTEK



## SECTION 10: Stability and Reactivity

- **Reactivity:** Chemically inert and non-reactive when stored under specified dry guidelines.
- **Chemical Stability:** Stable under room-temperature warehouse parameters. Highly resistant to physical caking if protected from atmospheric humidity.
- **Possibility of Hazardous Reactions:** No hazard configurations or hazardous polymerization states known.
- **Conditions to Avoid:** Ambient high humidity, wet moisture entry into storage sacks, or contact with open water pools.
- **Incompatible Chemicals:** Highly reactive, strong mineral acids and intense oxidizing chemical agents.
- **Hazardous Breakdown Outputs:** Thermal degradation releases carbon dioxide (CO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>) fumes.

## SECTION 11: Toxicological Information

- **Acute Oral Effects:** Estimated LD50 (Oral, Rat) > 2,000 mg/kg (low toxicity danger).
- **Dermal Toxicity / Skin Irritation:** Officially verified as non-irritant under standard OECD in vitro testing frameworks at operational usage dilution (MCAL/2026/1277B).
- **Ocular Degradation:** Concentrated raw dust causes severe mechanical scratch risk and mucous membrane irritation if not washed instantly.
- **Carcinogenicity Risks:** Contains trace formaldehyde solution acting as a closed-pouch shelf stabiliser. Bound within an active dry powder matrix, it remains below occupational action exposure limits during regular industrial usage.

# VONGUARD CLEANTEK



## SECTION 12: Ecological Information

- **Ecotoxicity Impact:** The raw, concentrated compound contains anionic surfactants (SLS). Do not discharge bulk concentrated powder directly into open river ecosystems or fish habitats.
- **Biodegradability Index:** The 48.5% surfactant active structure breaks down rapidly through standard environmental aerobic microbial pathways.
- **Bioaccumulation:** Minimal environmental bioaccumulation potential.
- **Soil Mobility:** Completely water-soluble; moves through water layers if an unmitigated industrial spill hits raw topsoil.

## SECTION 13: Disposal Considerations

- **Waste Processing:** Dispose of industrial residues cleanly in strict alignment with regional environmental codes (such as the Telangana State Pollution Control Board guidelines in India).
- **Bag Handling:** Triple-rinse emptied plastic pouches with processing water. Direct clean plastic sheets to certified polymer recycling lines or commercial waste-to-energy recovery channels.

## SECTION 14: Transport Information

- **UN Shipping Number:** Not Regulated (Classified as non-hazardous for land, sea, or air cargo logistics)
- **Proper Technical Shipping Name:** Cleaning Compounds, Granular Dry Powder
- **Hazard Class:** Not Applicable
- **Packing Group:** Not Applicable
- **Marine Pollutant Status:** No (According to IMDG specifications)

# VONGUARD CLEANTEK



## SECTION 15: Regulatory Information

- **National Industrial Standards:** Formulated in compliance with standard Indian factory regulations. Raw materials align cleanly with Bureau of Indian Standards (BIS) parameters for commercial maintenance detergents.
- **Chemical Safety Listings:** All key active ingredients fit cleanly within US EPA TSCA frameworks and European REACH inventory regulations.

## SECTION 16: Other Information

### NFPA 704 Technical Core Rating (Concentrated Powder State)

- **Health (Blue): 2 (Moderate Hazard - Protect Eyes from Dust)**
- **Flammability (Red): 0 (Minimal Hazard - Non-Combustible)**
- **Instability/Reactivity (Yellow): 0 (Minimal Hazard - Stable Compound)**

### Disclaimer:

The technical parameters integrated into this safety sheet match the official NABL laboratory certificates performed on Vanguard Cleantek's VC-1 Multi-surface compound at the permanent facility located in Boduppall, Hyderabad. This record functions strictly as an engineering safety guide for corporate B2B clients, contract blenders, and downstream facility processors.