

Safety Data Sheet

All **K-Bin** Dryblends



Revision: 8/12/2020

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: K-Bin Dryblend: All grades beginning with the prefix, KBD-, followed by alphanumeric code for grade and color
PRODUCT CODE: All products beginning with the prefix, KBD-
CHEMICAL NAME: Rigid PVC Compound; Mixture of polyvinyl chloride resin, CAS 9002-86-2, and other ingredients
SYNONYMS: PVC dryblend

MANUFACTURER: K-Bin, Inc.
5616 E. Highway 332, Freeport, TX 77541 USA

EMERGENCY PHONE: 979-233-6610 (Ext. 300)

CHEMICAL FORMULA: Mixture: Organic Polymer Composite of polyvinyl chloride resin (CAS# 9002-86-2) and functional ingredients

PRODUCT USE: Industrial Uses, May be molded or extruded into various articles

SECTION 2. HAZARDS IDENTIFICATION

Classification of Mixture: H232 combustible dust: Suspended airborne dust could form explosive mixture with air.

This mixture has not been evaluated as a whole. Polyvinyl chloride (PVC) may contain trace amounts (less than 1.5 ppm, but typically less than 0.5 ppm) of vinyl chloride monomer, CAS # 75-01-4. Vinyl chloride monomer or VCM is a known carcinogen. This mixture may also contain trace amounts of the following chemicals as residual monomers or residual process or product constituents.

4-Vinyl Cyclohexene, CAS No. 100-40-3	1,3-Butadiene, CAS No. 106-99-0
Styrene, CAS No. 100-42-5	Silicon Dioxide (quartz), CAS No. 14808-60-7
Butyl Acrylate, CAS No. 141-32-2	Methyl Methacrylate, CAS No. 80-62-6
Methane, CAS No. 74-82-8	Divinylbenzene, CAS No. 1321-74-0
tert-Butyl Alcohol, CAS No. 75-65-0	n-Dodecyl mercaptan, CAS No. 80-62-6
Ethyl Acrylate, CAS No. 140-88-5	Sulfur Dioxide, CAS 7446-09-5
Benzene, methyl (Toluene), CAS No. 108-88-3	

Users should take the necessary precautions during melt processing to ensure compliance with all applicable regulations concerning potential exposure to VCM and processing fumes. PVC dryblend may cause irritation to the eyes or skin and moderate allergic dermatitis. Inhalation may result in respiratory irritation. In the absence of specific toxicological studies, take precautions to prevent exposure due to inhalation and ingestion. Various hazards may be associated with individual ingredients that may be present in this mixture. Hazard symbols and descriptions for those ingredients are given below.



GHS07



GHS05



GHS08

Signal Word: Warning

Hazard Statements: H315 Causes skin irritation; H317 May cause allergic skin reaction; H319 Causes serious eye irritation; H232 Combustible dust; H341 suspected of causing genetic effects; H351 Suspected of causing cancer (Inhalation); H360 Suspected of damaging fertility or the unborn child; H373; May cause damage to organs through repeated or prolonged exposure; H412 Harmful to aquatic life with long lasting effect



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Precautionary Statements: P261 Avoid breathing dust; P264 Wash thoroughly after handling; P280 Wear protective gloves, clothing, and eyewear; P305+P351+P338 If in eyes, rinse with water, remove contacts; continue rinsing; P308+P313 If exposed or concerned, get medical attention; P363 Wash contaminated clothing before reuse; P391+P501 collect spillage and dispose of contents/container in accordance with all appropriate regulations; P210 Keep away from heat, sparks, open flames, and hot surfaces-No smoking; P240 Ground/bond container and receiving equipment

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MAJOR COMPONENTS	CAS Ident.	LEVEL	CLASSIFICATION (GHS-US)
Polyvinyl chloride	9002-86-2	50-95 %	
Calcium carbonate	1317-65-3	0-50 %	Carc. 1A, H350
Talc	14807-96-6	0-50 %	
Titanium Dioxide	13463-67-7	0-12 %	Carc. 2, H351
Polymeric Impact Modifier/Process Aid	Various	0-25 %	Comb. dust; skin irrit. 2, H315; eye irrit. 2 H319; STOT SE3, H335
Lubricants	Various	0-6%	Comb. dust; skin irrit. 2, H315; eye irrit. 2 H319; STOT SE3, H335
Organotin heat stabilizers (may contain various methyl, butyl, or octyl tin stabilizers)	Various	0-4 %	Under normal and anticipated conditions of use, the heat stabilizer is bound within the PVC matrix with a reduced potential for exposure. See additional information below.

K-Bin dryblends contain one or more organotin stabilizers. These stabilizers may contain one or more ingredients with one or more of the following GHS classifications: Acute tox. 3 (oral), H301; Acute tox. 4 (oral), H302; Asp. Tox. 1, H304; Acute Tox. 2 (dermal), H310; Acute tox. 3 (dermal), H311; Acute Tox. 4 (dermal), H312; Skin Corr. 1C, H314; Skin irrit. 2, H315; Skin sens. 1A, H317; Eye Dam. 1, H318; Eye irrit. 2A, H319; Acute Tox. 3 (inhalation: dust, mist), H331; Acute Tox. 4 (inhalation, dust, mist), H332; STOT SE 3, H335; Muta. 2, H341; Carc. 1B, H350; Repr. 1B, H360; Repr. 2, H361; STOT SE 1, H370; STOT RE, H373; Aquatic acute 1 H400; Aquatic acute 2, H401; Aquatic chronic 1 H410; Aquatic chronic 2H411; Aquatic chronic 3 H412

SECTION 4. FIRST AID MEASURES

Eyes: Flush eyes with water holding eyelids open. Seek medical attention if irritation or symptoms persist.
Skin: Wash affected area with soap and water. Get medical attention if irritation or symptoms develop.
Ingestion: Give 1-2 glasses of water to dilute ingested material. Never give anything to an unconscious person. Get medical attention.
Inhalation: Remove victim to fresh air. Administer oxygen if breathing is difficult. If breathing has stopped, provide artificial respiration. Seek immediate medical care by trained personnel. In case of inhalation of decomposition products after a fire or several thermal excursion, symptoms may be delayed and require monitoring for 48 hrs.

SECTION 5. FIRE FIGHTING MEASURES

Flammability properties for this product have not been established. Rigid PVC compounds will burn if exposed to external sources of heat. In general, rigid PVC compounds will not sustain combustion without exposure to heat from another source.

Extinguishing Media: Water spray, foam, carbon dioxide, or dry chemical. Water spray is best due to cooling effect.

Special Hazards: Weak to moderate combustible dust; Suspended airborne dust may form explosive air mixture.

Hazardous Decomposition Products: Upon combustion or pyrolysis, PVC compounds evolve hydrogen chloride, carbon monoxide, carbon dioxide, various hydrocarbons and aromatic hydrocarbons, and other toxic gases accompanied by dense black smoke.

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Fire Fighting Instructions: Avoid inhalation of material or combustion by-products. Use NIOSH approved, self-contained breathing apparatus and protective clothing. Continue cooling with water after fire is out to reduce emission of hazardous decomposition products. Collect contaminated fire-fighting water separately.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures:

Avoid dust formation, inhalation, and direct contact. See section 8 for more information.

Environmental Precautions/Spill Procedures:

Contain spill and do not allow material into drainage systems or waterways. Collect material using appropriate measures to limit dust formation. Non-recoverable, non-recyclable material and/or contaminated soil and other materials should be placed in proper containers for disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling: Use the proper protective equipment when handling. See section 8 for more information. Avoid direct contact with the product. Take measures to reduce and control dust formation. Avoid inhalation and ingestion of any dust that is created. Eating, drinking, and smoking should be prohibited in areas where the product is stored, handled, and used. Wash thoroughly after handling and remove contaminated clothing before entering eating areas.

Storage: Store in cool, dry, closed, and properly labeled containers away from direct sunlight. Do not store in areas where incompatible materials or conditions may be encountered. See section 10 for additional information. All containers should be grounded to minimize buildup of and help dissipate any static charge. Do not expose the product to high heat or any sources of ignition. Maintain firefighting and spill response equipment in the event of accidental spill or fire.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

COMPONENT	OSHA PEL	ACGIH TLV
1,3-Butadiene	1 ppm, TWA 5 ppm, STEL	2 ppm, TWA
4-Vinyl cyclohexene		0.1 ppm, TWA
Butyl acrylate	10 ppm, TWA	2 ppm, TWA
Calcium carbonate	15 mg/m ³ , TWA (total dust) 5 mg/m ³ , TWA (respirable fraction)	
Divinylbenzene	10 ppm, TWA	10 ppm, TWA
Ethyl acrylate		5 ppm, TWA, 15 ppm STEL
Methyl methacrylate	100 ppm, TWA	100 ppm, TWA
n-Dodecyl mercaptan		0.1 ppm, TWA
Organotin compounds	0.1 mg/m ³ as tin	0.1 mg/m ³ as tin TWA 0.2 mg/m ³ as tin STEL
Polyvinyl chloride	15 mg/m ³ , TWA (total dust) 5 mg/m ³ , TWA (respirable fraction)	1 mg/m ³ , TWA (respirable fraction)
Silicon dioxide (quartz)	0.05 mg/m ³ , TWA (respirable fraction)	0.025 mg/m ³ , TWA (respirable fraction)
Styrene	100 ppm, TWA 200 ppm, CEILING	20 ppm, TWA 40 ppm, STEL
Sulfur dioxide	5 ppm, TWA	0.25 ppm STEL



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Talc		2 mg/m ³ , TWA
tert-butyl alcohol	100 ppm, TWA	100 ppm, TWA
Titanium dioxide	10 mg/m ³ , TWA (total dust)	10 mg/m ³ , TWA
Toluene	100 ppm, TWA	20 ppm, TWA
Vinyl chloride	1 ppm, TWA 5 ppm, 15 min. STEL	1 ppm, TWA

Engineering Controls: Provide a continuous supply of fresh air to the workplace as well as local and general exhaust ventilation to remove processing fumes and control airborne dust. Avoid skin contact with and treat as hazardous any condensed vapors in exhaust hoods and ducts. All metal surfaces contacting the molten polymer should be stainless steel or surface treated to prevent corrosion and interaction with PVC that can lead to evolution of hazardous decomposition products.

Personal Protection:

- Eyes/Face** Wear ANSI approved safety glasses with side shields, goggles, or full-face shield as necessary to prevent contact with product.
- Skin** Work gloves should be worn to prevent contact of the product with the hands. Protective clothing including aprons, coveralls, etc. may be desirable in under certain work conditions. If allergic dermatitis appears, use chemical resistant gloves and coveralls and/or reassign susceptible personnel to eliminate contact with product. Use appropriate thermal gloves, sleeves, etc. to prevent burns from contact with molten product.
- Respiratory** Wear NIOSH approved particulate respirator if airborne concentrations are expected to exceed exposure limits. In the event of thermal decomposition or fire, trained personnel should wear full-face acid gas respirator or self-contained breathing apparatus. All respirators should be selected and worn according to the OSHA respiratory protection standard (29 CFR 1910.134).



SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Free-flowing granular solid	Flammability properties:	Not determined
Color:	Varies with grade and color designation	Solubility in water:	Insoluble
Odor:	Characteristic mild odor	Specific Gravity:	1.30-1.75
Melting point:	Softens gradually with increasing temperature	Bulk Density:	30-50 lb/ft ³

SECTION 10. STABILITY AND REACTIVITY

- Reactivity/Stability:** This product is stable under normal storage conditions.
- Conditions to Avoid:** Prolonged heating at processing conditions, processing temperatures above 400 °F, and excessive heat/shear combinations can generate hazardous decomposition products. Avoid creating dust, sources of high heat or flames, and ignition.



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Incompatible Materials: This product must not contact acetal or acetal copolymers within melt processing equipment. Do not melt process acetal or acetal copolymers on the same equipment used to process PVC.

Hazardous Decomposition Products: Overheating may result in thermal degradation including emission of hydrogen chloride, carbon dioxide, carbon monoxide, various hydrocarbons and aromatic hydrocarbons, organotins, and other tin compounds. Emissions of these decomposition products may also occur during typical thermal processing.

SECTION 11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Classifications and exposure effects listed below are for select individual components of the mixture. Refer to sections 2 and 3 for information on ingredient content in this product.

Substances Classified by International Agency for Research on Cancer	IARC Category
1,3-Butadiene (106-99-0)	1
4-Vinyl cyclohexene (100-40-3)	2B
Ethyl Acrylate (140-88-5)	2B
Polyvinyl chloride (9002-86-2)	3 (not classifiable)
Silicon dioxide (14808-60-7)	1
Styrene (100-42-5)	2A
Sulfur Dioxide (7446-09-5)	3
Titanium dioxide (13463-67-7)	2B
Toluene (108-88-3)	3
Vinyl chloride monomer (75-01-4)	1

Health Effects

Acute toxicity: Mixture not tested, data not available

Skin: Prolonged exposure may cause skin irritation and allergic dermatitis, mixture not tested

Eyes: May cause eye irritation due to mechanical action, mixture not tested

Respiratory: May be harmful and cause respiratory irritation if inhaled, mixture not tested

Ingestion: No known significant effects, mixture not tested

SECTION 12. ECOLOGICAL INFORMATION

Toxicity: No ecotoxicity data is available for this mixture as a whole. May contain individual ingredients harmful to aquatic life with long lasting effects.

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Do not dump this product into sewers, on the ground, or into any body of water. Avoid generation of waste whenever possible. Recycle of uncontaminated product is recommended. Dispose of non-recyclable material in accordance with all applicable federal, state, and local laws via a licensed waste disposal contractor. Waste characterization and compliance with all applicable laws are the responsibility of the waste generator.

RCRA P-Series: Not listed
 RCRA U-Series: Not listed

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14. TRANSPORT INFORMATION

This product is not regulated as a hazardous material for transportation.

DOT Hazard Class:	Not applicable	IMO/IMDG Description:	Not applicable
ICAO/IATA Description:	Not applicable	Transport Canada TDG:	Not applicable

SECTION 15. REGULATORY INFORMATION

TSCA: All ingredients are listed

CA Proposition 65: This product may contain titanium dioxide, CAS No. 13463-67-7, which is known to state of California to cause cancer in respirable form. This product may contain trace levels of the following Proposition 65 listed chemicals as residual monomers or residual process or product constituents.

4-Vinyl Cyclohexene, CAS No. 100-40-3	1,3-Butadiene, CAS No. 106-99-0
Styrene, CAS No. 100-42-5	Silicon Dioxide (quartz), CAS No. 14808-60-7
Vinyl Chloride, CAS No. 75-01-4	Sulfur Dioxide, CAS No. 7446-09-5
Benzene, methyl (Toluene), CAS No. 108-88-3	Ethyl Acrylate, CAS No. 140-88-5



WARNING: This product can expose you to chemicals including vinyl chloride, which are known to the State of California to cause cancer, and chemicals including butadiene, which are known to cause birth defects or reproductive harm. For more information go to www.P65Warnings.ca.gov

OSHA: Vinyl chloride is classified as a carcinogen and regulated by OSHA 29 CFR 1910.1017.

16. OTHER INFORMATION

Key to Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
DOT	US Department of Transportation
DSL	Canadian Domestic Substances List
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PVC	Polyvinyl Chloride
STEL	Short term exposure limit
TDG	Transport Canada-Transportation or Dangerous Goods



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TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
VCM	vinyl chloride monomer

History:

Revision Date:	August 12, 2020
Supersedes:	February 19, 2020

This information is accurate to best of our knowledge at the current time. However, it is furnished without warranty, expressed or implied, and K-Bin assumes no liability for its accuracy or completeness. Determination of the suitability of this product for any particular purpose is the sole responsibility of the user. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user.