

## Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

### Early Fantasies Factory LLC

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

SDS No.: HKGH0297039906

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## SECTION 1 Identification

### Product Identifier

<b>Product name</b>	Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets) Contains: Boric acid
<b>Synonyms</b>	Air light clay, air clay, air clay compound, air-dry clay, air-dry compound, air dry clay, light clay, air modeling clay, modeling clay, light air clay, air compound, jumping clay, jumping air clay, jumping light clay
<b>Other means of identification</b>	Not Available

### Recommended use of the chemical and restrictions on use

<b>Relevant identified uses</b>	Developing and educational toys for children
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### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

<b>Registered company name</b>	Early Fantasies Factory LLC
<b>Address</b>	80300, Ukraine, Zhovkva, Vokzalna 32b Street
<b>Telephone</b>	+380967445973
<b>Fax</b>	Not Available
<b>Website</b>	Not Available
<b>Email</b>	kondratev.r@oktoclay.com

### Emergency phone number

<b>Association / Organisation</b>	Early Fantasies Factory LLC
<b>Emergency telephone numbers</b>	+380979444140 (Operation hours: 09:00-18:00)
<b>Other emergency telephone numbers</b>	Not Available

## SECTION 2 Hazard(s) identification


### Classification of the substance or mixture

<b>Classification</b>	Reproductive Toxicity Category 1A
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Continued...

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**Label elements**

<b>Hazard pictogram(s)</b>	
<b>Signal word</b>	<b>Danger</b>

**Hazard statement(s)**

<b>H360</b>	May damage fertility or the unborn child.
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**Hazard(s) not otherwise classified**

Not Applicable

**Precautionary statement(s) General**

<b>P101</b>	If medical advice is needed, have product container or label at hand.
<b>P102</b>	Keep out of reach of children.
<b>P103</b>	Read label before use.

**Precautionary statement(s) Prevention**

<b>P201</b>	Obtain special instructions before use.
<b>P280</b>	Wear protective gloves/protective clothing/eye protection/face protection.
<b>P202</b>	Do not handle until all safety precautions have been read and understood.

**Precautionary statement(s) Response**

<b>P308+P313</b>	IF exposed or concerned: Get medical advice/ attention.
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**Precautionary statement(s) Storage**

<b>P405</b>	Store locked up.
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**Precautionary statement(s) Disposal**

<b>P501</b>	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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**SECTION 3 Composition / information on ingredients****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
9002-89-5	10-15	<u>polyvinyl alcohol</u>
56-81-5	5-10	<u>glycerol</u>
9005-25-8	5-10	<u>starch</u>
8009-03-8	5-10	<u>petrolatum</u>
64365-11-3	0-5	<u>charcoal, activated</u>
75-28-5	0.1-0.5	<u>iso-butane</u>

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147-14-8	0-0.5	<u>C.I. Pigment Blue 15</u>
157627-86-6	0.1-0.2	<u>alcohols C13-15-branched and linear, ethoxylated</u>
10043-35-3	0.1-0.2	<u>boric acid</u>
1328-53-6*	0-0.05	<u>C.I. Pigment Green 7</u>
75-35-4	0.01-0.05	<u>vinylidene chloride</u>
13463-67-7	0.01-0.05	<u>titanium dioxide</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## SECTION 4 First-aid measures

### Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▸ Wash out immediately with water.</li> <li>▸ If irritation continues, seek medical attention.</li> <li>▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<ul style="list-style-type: none"> <li>▸ Wash hands after use.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▸ Other measures are usually unnecessary.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▸ Immediately give a glass of water.</li> <li>▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

### Most important symptoms and effects, both acute and delayed

See Section 11

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 Fire-fighting measures

### Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	<ul style="list-style-type: none"> <li>▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul>
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### Special protective equipment and precautions for fire-fighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▸ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▸ Wear breathing apparatus plus protective gloves.</li> <li>▸ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▸ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▸ DO NOT approach containers suspected to be hot.</li> <li>▸ Cool fire exposed containers with water spray from a protected location.</li> <li>▸ If safe to do so, remove containers from path of fire.</li> <li>▸ Equipment should be thoroughly decontaminated after use.</li> </ul>
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<b>Fire/Explosion Hazard</b>	<p>Polyvinyl alcohol powder is a ST-1 (strong) dust explosion hazard when tested to ASTM E-1226. The explosive hazard is highly dependent on particle size, the finer the particles the greater the explosive strength</p> <p>Typical maximum explosion pressure: 540 kPa</p> <p>Dust Explosion Hazard Class 1</p> <p>Dusts fall into one of three Kst* classes. Class 1 dusts; Kst 1-200 m3/sec; Class 2 dusts; 201-299 m3/sec. Class 3 dusts; Kst 300 or more. Most agricultural dusts (grains, flour etc.) are Class 1; pharmaceuticals and other speciality chemicals are typically Class 1 or 2; most unoxidised metallic dusts are Class 3. The higher the Kst, the more energetically the dust will burn and the greater is the explosion risk and the greater is the speed of the explosion..</p> <p>Standard test conditions, used to derive the Kst, are representative of industrial conditions, but do not represent an absolute worst case. Increased levels of turbulence increase the speed of the explosion dramatically.</p> <p>* Kst - a normalised expression of the burning dust pressure rise rate over time.</p> <p>For starch/ air mixtures</p> <p>Starch is a class St1 dust at normal moisture level:</p> <p>Minimum Ignition Temperature (MIE): &gt;30 mJ at normal moisture level</p> <p>Pmax 9.5 Bar</p> <p>Kst 170 bar.m/s</p> <p>Layer Ignition Temperature: &gt;450 deg C</p> <p>Autoignition Temperature: 170 deg C (above this temperature starch will self-heat)</p> <p>Dusts with Minimum Ignition Energies (MIEs) ranging between 20 and 100 mJ may be sensitive to ignition. They require that:</p> <ul style="list-style-type: none"> <li>· plant is grounded</li> <li>· personnel might also need to be grounded</li> <li>· the use of high resistivity materials (such as plastics) should be restricted or avoided during handling or in packaging</li> </ul> <p>The majority of ignition accidents occur within or below this range.</p> <p>The MIE of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE. Higher temperatures cause lower MIE and an increased risk of dust explosion.</p> <p>Quoted values for MIE generally are only representative. Characteristics may change depending upon the process and conditions of use or any changes made to the dust during use, including further grinding or mixing with other products. In order to obtain more specific data for dust, as used, it is recommended that further characterisation testing is performed.</p> <p>Combustible. Will burn if ignited.</p> <p>Combustion products include:</p> <p>carbon monoxide (CO)</p> <p>carbon dioxide (CO2)</p> <p>metal oxides</p> <p>other pyrolysis products typical of burning organic material.</p> <p>May emit poisonous fumes.</p>
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## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

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### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▸ Clean up all spills immediately.</li> <li>▸ Avoid contact with skin and eyes.</li> <li>▸ Wear impervious gloves and safety goggles.</li> <li>▸ Trowel up/scrape up.</li> <li>▸ Place spilled material in clean, dry, sealed container.</li> <li>▸ Flush spill area with water.</li> </ul>
<b>Major Spills</b>	<p>Minor hazard.</p> <ul style="list-style-type: none"> <li>▸ Clear area of personnel.</li> <li>▸ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▸ Control personal contact with the substance, by using protective equipment as required.</li> <li>▸ Prevent spillage from entering drains or water ways.</li> <li>▸ Contain spill with sand, earth or vermiculite.</li> <li>▸ Collect recoverable product into labelled containers for recycling.</li> <li>▸ Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.</li> <li>▸ Wash area and prevent runoff into drains or waterways.</li> <li>▸ If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▸ Avoid contact with incompatible materials.</li> <li>▸ When handling, DO NOT eat, drink or smoke.</li> <li>▸ Keep containers securely sealed when not in use.</li> <li>▸ Always wash hands with soap and water after handling.</li> <li>▸ Use good occupational work practice.</li> <li>▸ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▸ Store in original containers.</li> <li>▸ Keep containers securely sealed.</li> <li>▸ Store in a cool, dry, well-ventilated area.</li> <li>▸ Store away from incompatible materials and foodstuff containers.</li> <li>▸ Protect containers against physical damage and check regularly for leaks.</li> <li>▸ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>

### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▸ Metal can or drum</li> <li>▸ Packaging as recommended by manufacturer.</li> <li>▸ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<p>Glycerol:</p> <ul style="list-style-type: none"> <li>▸ reacts violently with strong oxidisers, acetic anhydride, alkali metal hydrides, calcium hypochlorite, calcium oxychloride, chlorine, chromic anhydride, chromium oxides, ethylene oxide, hydrogen peroxide, phosphorous triiodide, potassium chlorate, potassium permanganate, potassium peroxide, silver perchlorate, sodium hydride, sodium peroxide, sodium triiodide, sodium tetrahydroborate, is incompatible with strong acids, caustics, aliphatic amines, isocyanates, uranium fluoride</li> <li>▸ is able to polymerise above 145 C</li> </ul> <p>The substance may be or contains a "metalloid"</p> <p>The following elements are considered to be metalloids; boron, silicon, germanium, arsenic, antimony, tellurium and (possibly) polonium</p>

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The electronegativities and ionisation energies of the metalloids are between those of the metals and nonmetals, so the metalloids exhibit characteristics of both classes. The reactivity of the metalloids depends on the element with which they are reacting. For example, boron acts as a nonmetal when reacting with sodium yet as a metal when reacting with fluorine.

Unlike most metals, most metalloids are amphoteric- that is they can act as both an acid and a base. For instance, arsenic forms not only salts such as arsenic halides, by the reaction with certain strong acid, but it also forms arsenites by reactions with strong bases.

Most metalloids have a multiplicity of oxidation states or valences. For instance, tellurium has the oxidation states +2, -2, +4, and +6. Metalloids react like non-metals when they react with metals and act like metals when they react with non-metals.

Polyvinyl alcohol may contain minor amounts of methanol and methyl acetate which diffuse from the powder over time. Under certain conditions of heat and confinement, vapour head spaces of trucks, rail cars, bins or silos could exceed the lower explosive limits of those diffused vapours and produce an explosion given an ignition source. The energy required for ignition of a flammable vapour is much less than that of a flammable dust.

Energy of decomposition (in the range 125-430 deg C) was measured as 0.59 kJ/g

Polyvinyl alcohol has excellent film forming, emulsifying, and adhesive properties. It is also resistant to oil, grease and solvent. It is odorless and nontoxic. It has high tensile strength and flexibility, as well as high oxygen and aroma barrier properties. However these properties are dependent on humidity, in other words, with higher humidity more water is absorbed. The water, which acts as a plasticiser, will then reduce its tensile strength, but increase its elongation and tear strength. PVA is fully degradable and is a quick dissolver. PVA has a melting point of 230 deg C and 180-190 deg C for the fully hydrolysed and partially hydrolysed grades, respectively. It decomposes rapidly above 200 deg C as it can undergo pyrolysis at high temperatures.

When making the polyvinyl alcohol solution, it is recommended to use tap water, as bacteria grows faster in PVA containing distilled water.

The relationships between energy of decomposition and processing hazards have been investigated. It is suggested that in "open vessel" process (with man-hole sized openings), substances with exothermic decomposition energies below 500 J/g (0.5 kJ/g) are not likely to be hazardous (though there appear to be exceptions for certain classes of compound). In "closed vessel" process (opening is a safety valve or bursting disk), an upper limit of 150 J/g (0.15 kJ/g) is appropriate.

It was suggested that "adiabatic holding temperature which gives a time to exothermic decomposition of 24 hours, Tair24" can be calculated from isothermal DTA diagrams.

Reducing sugar-based material.

Autooxidation of reducing sugars may produce up to 3000 ppm carbon monoxide under moderately alkaline conditions. High pH aqueous solutions of saccharides (aldoses, ketoses) or polysaccharides based on these sugars may generate hazardous atmospheres in confined spaces.

Reducing sugars contain an aldehyde or free hemiacetal in the open-chain form. Sugars with ketone groups in their open chain form are capable of isomerising via a series of tautomeric shifts to produce an aldehyde group in solution. Therefore, ketone-bearing sugars like fructose are considered reducing sugars but it is the isomer containing an aldehyde group which is reducing since ketones cannot be oxidized without decomposition of the sugar.

Many disaccharides, like lactose and maltose, also have a reducing form, as one of the two units may have an open-chain form with an aldehyde group. However, sucrose and trehalose, in which the anomeric carbons of the two units are linked together, are non-reducing disaccharides since neither of the rings is capable of opening.

In glucose polymers such as starch and starch-derivatives like glucose syrup, maltodextrin and dextrin the macromolecule begins with a reducing sugar, a free aldehyde. More hydrolysed starch contains more reducing sugars. The percentage of reducing sugars present in these starch derivatives is called dextrose equivalent (DE).

Dilute solutions of all sugars are subject to fermentation, either by yeast or by other microorganisms or enzymes derived from these, producing gases which can pressurise and burst sealed containers.

Some microorganisms will produce hydrogen or methane, adding a fire and explosion hazard.

• Avoid reaction with oxidising agents

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**SECTION 8 Exposure controls / personal protection**

**Control parameters**

**Occupational Exposure Limits (OEL)**

**INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	polyvinyl alcohol	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	polyvinyl alcohol	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	polyvinyl alcohol	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	polyvinyl alcohol	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	polyvinyl alcohol	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glycerol	Glycerin (mist)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glycerol	Glycerin (mist)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	glycerol	Glycerin (mist)	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	starch	Starch- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	starch	Starch- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	starch	Starch - respirable	5 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	starch	Starch - total	10 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	petrolatum	Oil mist, mineral	5 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	iso-butane	Isobutane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	vinylidene chloride	Vinylidene chloride	Not Available	Not Available	Not Available	Ca; See Appendix A

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US OSHA Permissible Exposure Limits (PELs) Table Z-1	titanium dioxide	Titanium dioxide - Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	titanium dioxide	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	titanium dioxide	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	titanium dioxide	Titanium dioxide	Not Available	Not Available	Not Available	Ca; See Appendix A
US OSHA Permissible Exposure Limits (PELs) Table Z-1	C.I. Pigment Blue 15	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	C.I. Pigment Blue 15	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	C.I. Pigment Blue 15	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	C.I. Pigment Blue 15	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	C.I. Pigment Blue 15	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	C.I. Pigment Green 7	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	C.I. Pigment Green 7	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	C.I. Pigment Green 7	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	C.I. Pigment Green 7	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	C.I. Pigment Green 7	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	charcoal, activated	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	charcoal, activated	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	charcoal, activated	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available



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US OSHA Permissible Exposure Limits (PELs) Table Z-3	charcoal, activated	Inert or Nuisance Dust: Respirable fraction	5 mg/m <sup>3</sup> / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	charcoal, activated	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D

**Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
polyvinyl alcohol	24 mg/m <sup>3</sup>	270 mg/m <sup>3</sup>	1,600 mg/m <sup>3</sup>
glycerol	45 mg/m <sup>3</sup>	180 mg/m <sup>3</sup>	1,100 mg/m <sup>3</sup>
starch	30 mg/m <sup>3</sup>	330 mg/m <sup>3</sup>	2,000 mg/m <sup>3</sup>
petrolatum	140 mg/m <sup>3</sup>	1,500 mg/m <sup>3</sup>	8,900 mg/m <sup>3</sup>
iso-butane	5500* ppm	17000** ppm	53000*** ppm
vinylidene chloride	45 ppm	Not Available	Not Available
boric acid	6 mg/m <sup>3</sup>	23 mg/m <sup>3</sup>	830 mg/m <sup>3</sup>
titanium dioxide	30 mg/m <sup>3</sup>	330 mg/m <sup>3</sup>	2,000 mg/m <sup>3</sup>

Ingredient	Original IDLH	Revised IDLH
polyvinyl alcohol	Not Available	Not Available
glycerol	Not Available	Not Available
starch	Not Available	Not Available
petrolatum	2,500 mg/m <sup>3</sup>	Not Available
iso-butane	Not Available	Not Available
vinylidene chloride	Not Available	Not Available
alcohols C13-15- branched and linear, ethoxylated	Not Available	Not Available
boric acid	Not Available	Not Available
titanium dioxide	5,000 mg/m <sup>3</sup>	Not Available
C.I. Pigment Blue 15	Not Available	Not Available
C.I. Pigment Green 7	Not Available	Not Available
charcoal, activated	Not Available	Not Available

**Occupational Exposure Banding**

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
alcohols C13-15- branched and linear, ethoxylated	E	≤ 0.1 ppm
boric acid	D	> 0.01 to ≤ 0.1 mg/m <sup>3</sup>

**Notes:**

*Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.*

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**Exposure controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

**Appropriate engineering controls**

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood - local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Assess operations based upon available dust explosion information to determine the suitability of preventative or protective systems as precautionary measures against possible dust explosions. If prevention is not possible, consider protection by use of containment, venting or suppression of dust handling equipment. Where explosion venting is considered to be the most appropriate method of protection, vent areas should preferably be calculated based on Kst rather than an St value. If nitrogen purging is considered as the protective system, it must operate with an oxygen level below the limiting oxygen concentration. The system should include an oxygen monitoring and shut-down facility in the event of excessive oxygen being detected.

The maximum surface temperature of enclosures potentially exposed to this material should be based on

## Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

	values obtained by taking 2/3 of the minimum ignition temperature (MIE) of the dust cloud. The effect of dust layers should be reviewed.  An isolated (insulated) human body can readily produce electrostatic discharges in excess of 50 mJ, but have been recorded up to 100 mJ.
<b>Individual protection measures, such as personal protective equipment</b>	See below
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▸ Safety glasses with side shields</li> <li>▸ Chemical goggles.</li> <li>▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▸ Wear chemical protective gloves, e.g. PVC.</li> <li>▸ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▸ Overalls.</li> <li>▸ P.V.C apron.</li> <li>▸ Barrier cream.</li> <li>▸ Skin cleansing cream.</li> <li>▸ Eye wash unit.</li> </ul>

**Recommended material(s)****GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

Not Available

**Respiratory protection**

Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AX P1 Air-line*	-	AX PAPR-P1
up to 50 x ES	Air-line**	AX P2	AX PAPR-P2
up to 100 x ES	-	AX P3	-
		Air-line*	-
100+ x ES	-	Air-line**	AX PAPR-P3

\* - Negative pressure demand \*\* - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

**SECTION 9 Physical and chemical properties****Information on basic physical and chemical properties**

<b>Appearance</b>	Dark blue, light yellow, green, black, white, yellow		
<b>Physical state</b>	Paste	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Available	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Available	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

## SECTION 10 Stability and reactivity

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 Toxicological information

### Information on toxicological effects

<b>Inhaled</b>	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
<b>Ingestion</b>	Methanol may produce a burning or painful sensation in the mouth, throat, chest, and stomach. This may be accompanied by nausea, vomiting, headache, dizziness, shortness of breath, weakness, fatigue, leg cramps, restlessness, confusion, drunken behaviour, visual disturbance, drowsiness, coma and death. Starch is generally of low toxicity. An abnormal craving for starch (amylophagia) during pregnancy has been recognized in certain areas. The material has NOT been classified by other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. Ingestion or skin absorption of boric acid causes nausea, abdominal pain, diarrhoea and profuse vomiting which may be blood stained, headache, weakness, reddened lesions on the skin. In severe cases, it may cause shock, with fall in blood pressure, increase in heart rate, blue skin colour, brain and nervous irritation, reduced urine volume or even absence of urine. Borate poisoning causes nausea, vomiting, diarrhoea and pain in the upper abdomen. Often persistent vomiting occurs, and there may be blood in the faeces.
<b>Skin Contact</b>	The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Three-week dermal irritation tests using formulations containing 13% polyvinyl alcohol produced mild to moderate irritation. Boric acid is not absorbed via intact skin but absorbed on broken or inflamed skin. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
<b>Eye</b>	Although the material is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). A study showed eye drops containing 1.4% polyvinyl alcohol in saline did not lead to eye discomfort.

## Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

<b>Chronic</b>	Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material.	
	Some workers may develop chronic occupational dermatitis (generally mild) through the handling of starch products.	
<b>Chronic</b>	Chronic boric acid poisoning is characterized by mild gastrointestinal irritation, loss of appetite, disturbed digestion, nausea, possibly vomiting and a hard irregular and discoloured rash. Dryness of skin, reddening of tongue, loss of hair, inflammation of conjunctiva, and kidney injury have also been reported.	
	Borate can accumulate in the testes and deplete germ cells and cause withering of the testicles, according to animal testing. Hair loss, skin inflammation, stomach ulcer and anaemia can all occur.	
<b>Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>polyvinyl alcohol</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >7940 mg/kg Oral (Mouse) LD50; >4000 mg/kg	Skin: moderate
<b>glycerol</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (guinea pig) LD50: 58500 mg/kg Inhalation(Rat) LC50: >5.85 mg/L4h Oral (Mouse) LD50; 4090 mg/kg	Not Available
<b>starch</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Skin (human): 0.3 mg/3d-l mild
<b>petrolatum</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg Oral (Rat) LD50: >5000 mg/kg	Eye: no adverse effect observed (not irritating) Skin: no adverse effect observed (not irritating)
<b>iso-butane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation(Rat) LC50: >13023 ppm4h	Not Available
<b>vinylidene chloride</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: 10000 mg/kg Inhalation(Rat) LC50: 6350 ppm4h Oral (Mouse) LD50; 194 mg/kg	Eye: adverse effect observed (irritating) Skin: no adverse effect observed (not irritating)
<b>alcohols C13-15-branched and linear, ethoxylated</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>boric acid</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg Inhalation(Rat) LC50: >2.12 mg/l4h Oral (Rat) LD50: >2600 mg/kg	Eye: no adverse effect observed (not irritating) Skin (human): 15 mg/3d -l- mild Skin: no adverse effect observed (not irritating)

## Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

<b>titanium dioxide</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (Rat)TCLo: 0.04 mg/kg	Eye: no adverse effect observed (not irritating)
	Oral (Mouse)LD50; >10000 mg/kg *	Skin (human): 0.3 mg /3D (int)-mild *
	Oral (Mouse)TDLo: 0.0032 mg/kg	Skin: no adverse effect observed (not irritating)
	Oral (Rat)LD50: >20000 mg/kg *	
	Oral (Rat)TDLo: 60000 mg/kg	
<b>C.I. Pigment Blue 15</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg	Eye (human): non-irritant [Manuf. C.G.]
	Oral (Rat) LD50: >2000 mg/kg	Skin (human): non-irritant
<b>C.I. Pigment Green 7</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (Mouse) LD50; 8400 mg/kg	Not Available
	Oral (Rat) LD50: 14000 mg/kg	
<b>charcoal, activated</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Eye: no adverse effect observed (not irritating)
		Skin: no adverse effect observed (not irritating)

<b>POLYVINYL ALCOHOL</b>	* Monsanto The substance has been investigated as a tumorigen.	
<b>GLYCEROL</b>	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.</p> <p>At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it is of low toxicity. There is no significant evidence to suggest that it causes cancer, genetic, reproductive or developmental toxicity.</p>	
<b>PETROLATUM</b>	<p>Dermal (rabbit) TDLo: 100 ml/kg/30D-I Tumorigenic effects.</p> <p>"Hydrocarbon wax" describes a group of solid C20 to C36 paraffinic hydrocarbons which are not absorbed in the gastro-intestinal tract and in small quantity will pass through undigested.</p> <p>Refined waxes are used widely in cosmetic surgery over many years and this demonstrates their low toxicity; many guidelines exist for their safe use. However, occasionally there are reports of adverse effects with these products. Deposits under the skin, referred to as "paraffinoma" have been described, but these are not normally associated with other progressive changes.</p> <p>Long-term toxicity studies indicated that petroleum-derived paraffin and microcrystalline waxes are non-toxic and do not cause cancer.</p>	

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<b>VINYLDENE CHLORIDE</b>	For vinylidene chloride: In humans, inhaling vinylidene chloride at a concentration of 0.4% causes intoxication that may lead to unconsciousness. Stabilised vinylidene chloride also irritates the airways, eyes and skin. Prolonged or repeated exposure below levels that lead to loss of sensation has caused kidney and liver damage. In animals, acute inhalation has also caused irritation of the mucous membranes, depression of the central nervous system, and progressive toxicity to the heart (shown as a slow or irregular heartbeat); lung damage also occurred. Even low doses have caused increased DNA replication in animals, and cause kidney and liver damage if exposure is repeated. In animals, long term intermittent exposure to vinylidene chloride has clearly shown a link with development of kidney cancer. Whether or not kidney cancer is a result of genetic damage caused by vinylidene chloride is unknown. In animals, vinylidene chloride has not been found to cause genetic toxicity.
<b>ALCOHOLS C13-15-BRANCHED AND LINEAR, ETHOXYLATED</b>	<p>Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.</p> <p>Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to severe irritation occurred when undiluted alcohol ethoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates.</p> <p>Some of the oxidation products of this group of substances may have sensitizing properties. As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing.</p> <p>Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.</p>
<b>titanium dioxide</b>	<p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>Exposure to titanium dioxide is via inhalation, swallowing or skin contact. When inhaled, it may deposit in lung tissue and lymph nodes causing dysfunction of the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle. It penetrated only the outermost layer of the skin, suggesting that healthy skin may be an effective barrier. There is no substantive data on genetic damage, though cases have been reported in experimental animals. Studies have differing conclusions on its cancer-causing potential.</p> <p>WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. * IUCLID</p>
<b>POLYVINYL ALCOHOL &amp; VINYLDENE CHLORIDE</b>	<p>The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.</p>
<b>STARCH &amp; BORIC ACID &amp; titanium dioxide</b>	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>
<b>ALCOHOLS C13-15-BRANCHED AND LINEAR, ETHOXYLATED &amp; C.I. Pigment Green 7 &amp; CHARCOAL, ACTIVATED</b>	<p>No significant acute toxicological data identified in literature search.</p>



Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

<b>Acute Toxicity</b>	✗	<b>Carcinogenicity</b>	✗
<b>Skin Irritation/Corrosion</b>	✗	<b>Reproductivity</b>	✓
<b>Serious Eye Damage/Irritation</b>	✗	<b>STOT - Single Exposure</b>	✗
<b>Respiratory or Skin sensitisation</b>	✗	<b>STOT - Repeated Exposure</b>	✗
<b>Mutagenicity</b>	✗	<b>Aspiration Hazard</b>	✗

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – No data available for the final mixture, but the level of individual ingredients are considered in the overall property.

## SECTION 12 Ecological information

### Toxicity

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
polyvinyl alcohol	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.99	7
LC50	96h	Fish	000mg/l	Not Available	
glycerol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC0(ECx)	24h	Crustacea	>500mg/l	1
LC50	96h	Fish	>11 mg/l	2	
starch	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
petrolatum	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
iso-butane	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
LC50	96h	Fish	24.11mg/l	2	

## Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

	Endpoint	Test Duration (hr)	Species	Value	Source
vinylidene chloride	BCF	1008h	Fish	2.5-6.4	7
	NOEC(ECx)	Not Available	Crustacea	<2.4mg/l	1
	EC50	96h	Algae or other aquatic plants	410mg/l	1
	EC50	72h	Algae or other aquatic plants	7.42-11.3mg/l	4
	LC50	96h	Fish	57-91mg/l	4
	EC50	48h	Crustacea	37mg/l	2
alcohols C13-15-branched and linear, ethoxylated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
boric acid	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	70-80mg/l	4
	BCF	672h	Fish	<3.2	7
	EC50	72h	Algae or other aquatic plants	40.2mg/l	2
	EC50	48h	Crustacea	230mg/L	5
	NOEC(ECx)	576h	Fish	0.001mg/L	5
titanium dioxide	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<1.1-9.6	7
	LC50	96h	Fish	1.85-3.06mg/l	4
	EC50	72h	Algae or other aquatic plants	3.75-7.58mg/l	4
	EC50	48h	Crustacea	1.9mg/l	2
	EC50	96h	Algae or other aquatic plants	179.05mg/l	2
C.I. Pigment Blue 15	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.33-11	7
	LC50	96h	Fish	>100mg/l	2
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	EC50(ECx)	504h	Crustacea	>1mg/l	2
C.I. Pigment Green 7	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	0.51-4.8	7
	LC50	96h	Fish	>100mg/l	2
	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	EC50	48h	Crustacea	153.6mg/l	2
NOEC(ECx)	504h	Crustacea	>=1mg/l	2	

## Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

charcoal, activated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
polyvinyl alcohol	LOW	LOW
glycerol	LOW	LOW
iso-butane	HIGH	HIGH
vinylidene chloride	HIGH	HIGH
boric acid	LOW	LOW
titanium dioxide	HIGH	HIGH
C.I. Pigment Blue 15	HIGH	HIGH
charcoal, activated	LOW	LOW

**Bioaccumulative potential**

Ingredient	Bioaccumulation
polyvinyl alcohol	LOW (BCF = 7.5)
glycerol	LOW (LogKOW = -1.76)
iso-butane	LOW (BCF = 1.97)
vinylidene chloride	LOW (BCF = 13)
boric acid	LOW (BCF = 0)
titanium dioxide	LOW (BCF = 10)
C.I. Pigment Blue 15	LOW (BCF = 11)
C.I. Pigment Green 7	LOW (BCF = 74)
charcoal, activated	LOW (LogKOW = 0.7763)

**Mobility in soil**

Ingredient	Mobility
polyvinyl alcohol	HIGH (KOC = 1)
glycerol	HIGH (KOC = 1)
iso-butane	LOW (KOC = 35.04)
vinylidene chloride	LOW (KOC = 35.04)
boric acid	LOW (KOC = 35.04)
titanium dioxide	LOW (KOC = 23.74)
C.I. Pigment Blue 15	LOW (KOC = 10000000000)
charcoal, activated	LOW (KOC = 4.203)

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

## SECTION 13 Disposal considerations

### Waste treatment methods

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▸ Containers may still present a chemical hazard/ danger when empty.</li> <li>▸ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▸ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>▸ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▸ Consult State Land Waste Authority for disposal.</li> <li>▸ Bury or incinerate residue at an approved site.</li> <li>▸ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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## SECTION 14 Transport information

### Labels Required

<b>Marine Pollutant</b>	NO
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**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
polyvinyl alcohol	Not Available
glycerol	Not Available
starch	Not Available
petrolatum	Not Available
iso-butane	Not Available
vinylidene chloride	Not Available
alcohols C13-15- branched and linear, ethoxylated	Not Available
boric acid	Not Available
titanium dioxide	Not Available
C.I. Pigment Blue 15	Not Available
C.I. Pigment Green 7	Not Available
charcoal, activated	Not Available

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

#### Transport in bulk in accordance with the IGC Code

Product name	Ship Type
polyvinyl alcohol	Not Available
glycerol	Not Available
starch	Not Available
petrolatum	Not Available
iso-butane	Not Available
vinylidene chloride	Not Available
alcohols C13-15- branched and linear, ethoxylated	Not Available
boric acid	Not Available
titanium dioxide	Not Available
C.I. Pigment Blue 15	Not Available
C.I. Pigment Green 7	Not Available
charcoal, activated	Not Available

## SECTION 15 Regulatory information

### Safety, health and environmental regulations / legislation specific for the substance or mixture

#### polyvinyl alcohol is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

#### glycerol is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

#### starch is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US NIOSH Recommended Exposure Limits (RELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

**petrolatum is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 15th Report Part A Known to be Human Carcinogens

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**iso-butane is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

US - Massachusetts - Right To Know Listed Chemicals

US Department of Homeland Security (DHS) - Chemical Facility Anti-Terrorism Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**vinylidene chloride is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants

US - California Proposition 65 - Carcinogens

US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US Department of Homeland Security (DHS) - Chemical Facility Anti-Terrorism Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPA Integrated Risk Information System (IRIS)

US EPCRA Section 313 Chemical List

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US TSCA Section 4/12 (b) - Sunset Dates/Status

US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - List of Hazardous Substances

**alcohols C13-15-branched and linear, ethoxylated is found on the following regulatory lists**

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US TSCA Section 12(b) - List of Chemical Substances Subject to Export Notification Requirements

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

**boric acid is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
US DOE Temporary Emergency Exposure Limits (TEELs)  
US EPA Integrated Risk Information System (IRIS)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule  
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
US TSCA Chemical Substance Inventory - Interim List of Active Substances

**titanium dioxide is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs  
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans  
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US DOE Temporary Emergency Exposure Limits (TEELs)  
US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule  
US NIOSH Carcinogen List  
US NIOSH Recommended Exposure Limits (RELs)  
US OSHA Permissible Exposure Limits (PELs) Table Z-1  
US OSHA Permissible Exposure Limits (PELs) Table Z-3  
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US - California Proposition 65 - Carcinogens  
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US TSCA Chemical Substance Inventory - Interim List of Active Substances

US - Massachusetts - Right To Know Listed Chemicals

**C.I. Pigment Blue 15 is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
US Clean Air Act - Hazardous Air Pollutants  
US CWA (Clean Water Act) - Priority Pollutants  
US CWA (Clean Water Act) - Toxic Pollutants

US NIOSH Recommended Exposure Limits (RELs)  
US OSHA Permissible Exposure Limits (PELs) Table Z-1  
US OSHA Permissible Exposure Limits (PELs) Table Z-3  
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
US TSCA Chemical Substance Inventory - Interim List of Active Substances

**C.I. Pigment Green 7 is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
US CWA (Clean Water Act) - Priority Pollutants  
US CWA (Clean Water Act) - Toxic Pollutants  
US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1  
US OSHA Permissible Exposure Limits (PELs) Table Z-3  
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory  
US TSCA Chemical Substance Inventory - Interim List of Active Substances

**charcoal, activated is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)  
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5  
US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1  
US OSHA Permissible Exposure Limits (PELs) Table Z-3

Air light clay in dark blue, light yellow, green, black, white, yellow for Creative Sets (Air light clay Sets)

## SECTION 16 Other information

### Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**End of SDS**

*This SDS is based on a review of the information and documentation supplied without further verification by Intertek as to their accuracy or completeness. It is made solely on the basis of your instructions and/or information supplied by you. We provide no warranty that the information is truly representative of the sample source. It is limited to publicly available information and the state of knowledge as at the date of this SDS, particularly with respect to the health and safety information, and this SDS should be reviewed if the composition of the formulation is changed or when new information becomes available.*



**Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)****Early Fantasies Factory LLC**

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

SDS No.: HKGH0297039902

Issue Date: 27/03/2023

Print Date: 27/03/2023

**SECTION 1 Identification****Product Identifier**

<b>Product name</b>	Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets) Contains: Boric acid
<b>Synonyms</b>	Air light clay, air clay, air clay compound, air-dry clay, air-dry compound, air dry clay, light clay, air modeling clay, modeling clay, light air clay, air compound, jumping clay, jumping air clay, jumping light clay
<b>Other means of identification</b>	Not Available

**Recommended use of the chemical and restrictions on use**

<b>Relevant identified uses</b>	Developing and educational toys for children
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**Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party**

<b>Registered company name</b>	<b>Early Fantasies Factory LLC</b>
<b>Address</b>	80300, Ukraine, Zhovkva, Vokzalna 32b Street
<b>Telephone</b>	+380967445973
<b>Fax</b>	Not Available
<b>Website</b>	Not Available
<b>Email</b>	kondratev.r@oktoclay.com

**Emergency phone number**

<b>Association / Organisation</b>	<b>Early Fantasies Factory LLC</b>
<b>Emergency telephone numbers</b>	+380979444140 (Operation hours: 09:00-18:00)
<b>Other emergency telephone numbers</b>	Not Available


**SECTION 2 Hazard(s) identification****Classification of the substance or mixture**

<b>Classification</b>	Reproductive Toxicity Category 1A, Hazardous to the Aquatic Environment Long-Term Hazard Category 3
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Continued...

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

## Label elements

Hazard pictogram(s)	
Signal word	<b>Danger</b>

## Hazard statement(s)

H360	May damage fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

## Hazard(s) not otherwise classified

Not Applicable

## Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

## Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P202	Do not handle until all safety precautions have been read and understood.

## Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
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## Precautionary statement(s) Storage

P405	Store locked up.
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## Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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## SECTION 3 Composition / information on ingredients

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
9002-89-5	10-15	<u>polyvinyl alcohol</u>
56-81-5	5-10	<u>glycerol</u>
9005-25-8	5-10	<u>starch</u>
8009-03-8	5-10	<u>petrolatum</u>

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

CAS No	%[weight]	Name
75-28-5	0.1-0.5	<u>iso-butane</u>
157627-86-6	0.1-0.2	<u>alcohols C13-15-branched and linear, ethoxylated</u>
10043-35-3	0.1-0.2	<u>boric acid</u>
75-35-4	0.01-0.05	<u>vinylidene chloride</u>
13463-67-7	0.01-0.05	<u>titanium dioxide</u>
2390-63-8	0.01-0.05	<u>C.I. Basic Violet 11 chloride</u>
147-14-8	0-0.05	<u>C.I. Pigment Blue 15</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

## SECTION 4 First-aid measures

### Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with eyes:</p> <ul style="list-style-type: none"> <li>▸ Wash out immediately with water.</li> <li>▸ If irritation continues, seek medical attention.</li> <li>▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>▸ Flush skin and hair with running water (and soap if available).</li> <li>▸ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▸ Other measures are usually unnecessary.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▸ Immediately give a glass of water.</li> <li>▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

### Most important symptoms and effects, both acute and delayed

See Section 11

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 Fire-fighting measures

### Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

**Special protective equipment and precautions for fire-fighters**

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>▸ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▸ Wear breathing apparatus plus protective gloves.</li> <li>▸ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▸ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▸ DO NOT approach containers suspected to be hot.</li> <li>▸ Cool fire exposed containers with water spray from a protected location.</li> <li>▸ If safe to do so, remove containers from path of fire.</li> <li>▸ Equipment should be thoroughly decontaminated after use.</li> <li>▸ Immediately give a glass of water.</li> </ul>
<b>Fire/Explosion Hazard</b>	<p>Polyvinyl alcohol powder is a ST-1 (strong) dust explosion hazard when tested to ASTM E-1226. The explosive hazard is highly dependent on particle size, the finer the particles the greater the explosive strength</p> <p>Typical maximum explosion pressure: 540 kPa</p> <p>Dust Explosion Hazard Class 1</p> <p>Dusts fall into one of three Kst* classes. Class 1 dusts; Kst 1-200 m<sup>3</sup>/sec; Class 2 dusts; 201-299 m<sup>3</sup>/sec. Class 3 dusts; Kst 300 or more. Most agricultural dusts (grains, flour etc.) are Class 1; pharmaceuticals and other speciality chemicals are typically Class 1 or 2; most unoxidised metallic dusts are Class 3. The higher the Kst, the more energetically the dust will burn and the greater is the explosion risk and the greater is the speed of the explosion..</p> <p>Standard test conditions, used to derive the Kst, are representative of industrial conditions, but do not represent and absolute worst case. Increased levels of turbulence increase the speed of the explosion dramatically.</p> <p>* Kst - a normalised expression of the burning dust pressure rise rate over time.</p> <p>For starch/ air mixtures</p> <p>Starch is a class St1 dust at normal moisture level:</p> <p>Minimum Ignition Temperature (MIE): &gt;30 mJ at normal moisture level</p> <p>P<sub>max</sub> 9.5 Bar</p> <p>Kst 170 bar.m/s</p> <p>Layer Ignition Temperature: &gt;450 deg C</p> <p>Autoignition Temperature: 170 deg C (above this temperature starch will self-heat)</p> <p>Dusts with Minimum Ignition Energies (MIEs) ranging between 20 and 100 mJ may be sensitive to ignition. They require that:</p> <ul style="list-style-type: none"> <li>· plant is grounded</li> <li>· personnel might also need to be grounded</li> <li>· the use of high resistivity materials (such as plastics) should be restricted or avoided during handling or in packaging</li> </ul> <p>The majority of ignition accidents occur within or below this range.</p> <p>The MIE of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE. Higher temperatures cause lower MIE and an increased risk of dust explosion.</p> <p>Quoted values for MIE generally are only representative. Characteristics may change depending upon the process and conditions of use or any changes made to the dust during use, including further grinding or mixing with other products. In order to obtain more specific data for dust, as used, it is recommended that further characterisation testing is performed.</p> <p>Combustible. Will burn if ignited. Combustion products include:</p> <p>carbon monoxide (CO)</p> <p>carbon dioxide (CO<sub>2</sub>)</p> <p>metal oxides</p> <p>other pyrolysis products typical of burning organic material. May emit poisonous fumes.</p>

**SECTION 6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>▸ Clean up all spills immediately.</li> <li>▸ Avoid contact with skin and eyes.</li> <li>▸ Wear impervious gloves and safety goggles.</li> <li>▸ Trowel up/scrape up.</li> <li>▸ Place spilled material in clean, dry, sealed container.</li> <li>▸ Flush spill area with water.</li> </ul>
<b>Major Spills</b>	<p>Minor hazard.</p> <ul style="list-style-type: none"> <li>▸ Clear area of personnel.</li> <li>▸ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▸ Control personal contact with the substance, by using protective equipment as required.</li> <li>▸ Prevent spillage from entering drains or water ways.</li> <li>▸ Contain spill with sand, earth or vermiculite.</li> <li>▸ Collect recoverable product into labelled containers for recycling.</li> <li>▸ Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.</li> <li>▸ Wash area and prevent runoff into drains or waterways.</li> <li>▸ If contamination of drains or waterways occurs, advise emergency services.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 Handling and storage****Precautions for safe handling**

<b>Safe handling</b>	<p><b>DANGER:</b> Care should be exercised when opening bins, tanks or silo hatches. Emptying bags of PVOH powder directly into vessels where flammable vapours exist should be strictly prohibited because static discharges can be generated of sufficient strength to produce an explosion</p> <ul style="list-style-type: none"> <li>▸ Avoid all personal contact, including inhalation.</li> <li>▸ Wear protective clothing when risk of exposure occurs.</li> <li>▸ Use in a well-ventilated area.</li> <li>▸ Prevent concentration in hollows and sumps.</li> <li>▸ DO NOT enter confined spaces until atmosphere has been checked.</li> <li>▸ DO NOT allow material to contact humans, exposed food or food utensils.</li> <li>▸ Avoid contact with incompatible materials.</li> <li>▸ When handling, DO NOT eat, drink or smoke.</li> <li>▸ Keep containers securely sealed when not in use.</li> <li>▸ Avoid physical damage to containers.</li> <li>▸ Always wash hands with soap and water after handling.</li> <li>▸ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li> <li>▸ Use good occupational work practice.</li> <li>▸ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▸ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul>
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## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

<b>Other information</b>	<ul style="list-style-type: none"> <li>▸ Store in original containers.</li> <li>▸ Keep containers securely sealed.</li> <li>▸ Store in a cool, dry, well-ventilated area.</li> <li>▸ Store away from incompatible materials and foodstuff containers.</li> <li>▸ Protect containers against physical damage and check regularly for leaks.</li> <li>▸ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>
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**Conditions for safe storage, including any incompatibilities**

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▸ Metal can or drum</li> <li>▸ Packaging as recommended by manufacturer.</li> <li>▸ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<p>Glycerol:</p> <ul style="list-style-type: none"> <li>▸ reacts violently with strong oxidisers, acetic anhydride, alkali metal hydrides, calcium hypochlorite, calcium oxychloride, chlorine, chromic anhydride, chromium oxides, ethylene oxide, hydrogen peroxide, phosphorous triiodide, potassium chlorate, potassium permanganate, potassium peroxide, silver perchlorate, sodium hydride, sodium peroxide, sodium triiodide, sodium tetrahydroborate, is incompatible with strong acids, caustics, aliphatic amines, isocyanates, uranium fluoride</li> </ul> <p>is able to polymerise above 145 C</p> <p>The substance may be or contains a "metalloid"</p> <p>The following elements are considered to be metalloids; boron, silicon, germanium, arsenic, antimony, tellurium and (possibly) polonium</p> <p>The electronegativities and ionisation energies of the metalloids are between those of the metals and nonmetals, so the metalloids exhibit characteristics of both classes. The reactivity of the metalloids depends on the element with which they are reacting. For example, boron acts as a nonmetal when reacting with sodium yet as a metal when reacting with fluorine.</p> <p>Unlike most metals, most metalloids are amphoteric- that is they can act as both an acid and a base. For instance, arsenic forms not only salts such as arsenic halides, by the reaction with certain strong acid, but it also forms arsenites by reactions with strong bases.</p> <p>Most metalloids have a multiplicity of oxidation states or valences. For instance, tellurium has the oxidation states +2, -2, +4, and +6. Metalloids react like non-metals when they react with metals and act like metals when they react with non-metals.</p> <p>Polyvinyl alcohol may contain minor amounts of methanol and methyl acetate which diffuse from the powder over time. Under certain conditions of heat and confinement, vapour head spaces of trucks, railcars, bins or silos could exceed the lower explosive limits of those diffused vapours and produce an explosion given an ignition source. The energy required for ignition of a flammable vapour is much less than that of a flammable dust.</p> <p>Energy of decomposition (in the range 125-430 deg C) was measured as 0.59 kJ/g</p> <p>Polyvinyl alcohol has excellent film forming, emulsifying, and adhesive properties. It is also resistant to oil, grease and solvent. It is odorless and nontoxic. It has high tensile strength and flexibility, as well as high oxygen and aroma barrier properties. However these properties are dependent on humidity, in other words, with higher humidity more water is absorbed. The water, which acts as a plasticiser, will then reduce its tensile strength, but increase its elongation and tear strength. PVA is fully degradable and is a quick dissolver. PVA has a melting point of 230 deg C and 180-190 deg C for the fully hydrolysed and partially hydrolysed grades, respectively. It decomposes rapidly above 200 deg C as it can undergo pyrolysis at high temperatures.</p> <p>When making the polyvinyl alcohol solution, it is recommended to use tap water, as bacteria grows faster in PVA containing distilled water.</p> <p>The relationships between energy of decomposition and processing hazards have been investigated. It is suggested that in "open vessel" process (with man-hole sized openings), substances with exothermic decomposition energies below 500 J/g (0.5 kJ/g) are not likely to be hazardous (though there appear to be exceptions for certain classes of compound). In "closed vessel" process (opening is a safety valve or bursting disk), an upper limit of 150 J/g (0.15 kJ/g) is appropriate</p>

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

of 24 hours, Tair24" can be calculated from isothermal DTA diagrams

Reducing sugar-based material.

Autooxidation of reducing sugars may produce up to 3000 ppm carbon monoxide under moderately alkaline conditions. High pH aqueous solutions of saccharides (aldoses, ketoses) or polysaccharides based on these sugars may generate hazardous atmospheres in confined spaces.

Reducing sugars contain an aldehyde or free hemiacetal in the open-chain form. Sugars with ketone groups in their open chain form are capable of isomerising via a series of tautomeric shifts to produce an aldehyde group in solution. Therefore, ketone-bearing sugars like fructose are considered reducing sugars but it is the isomer containing an aldehyde group which is reducing since ketones cannot be oxidized without decomposition of the sugar.

Many disaccharides, like lactose and maltose, also have a reducing form, as one of the two units may have an open-chain form with an aldehyde group. However, sucrose and trehalose, in which the anomeric carbons of the two units are linked together, are non-reducing disaccharides since neither of the rings is capable of opening.

In glucose polymers such as starch and starch-derivatives like glucose syrup, maltodextrin and dextrin the macromolecule begins with a reducing sugar, a free aldehyde. More hydrolysed starch contains more reducing sugars. The percentage of reducing sugars present in these starch derivatives is called dextrose equivalent (DE).

Dilute solutions of all sugars are subject to fermentation, either by yeast or by other microorganisms or enzymes derived from these, producing gases which can pressurise and burst sealed containers. Some microorganisms will produce hydrogen or methane, adding a fire and explosion hazard.

- Avoid reaction with oxidising agents

**SECTION 8 Exposure controls / personal protection****Control parameters****Occupational Exposure Limits (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	polyvinyl alcohol	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	polyvinyl alcohol	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	polyvinyl alcohol	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	polyvinyl alcohol	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	polyvinyl alcohol	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glycerol	Glycerin (mist)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glycerol	Glycerin (mist)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	glycerol	Glycerin (mist)	Not Available	Not Available	Not Available	See Appendix D

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	starch	Starch- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	starch	Starch- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	starch	Starch - total	10 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	starch	Starch - respirable	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	petrolatum	Oil mist, mineral	5 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	iso-butane	Isobutane	800 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	vinylidene chloride	Vinylidene chloride	Not Available	Not Available	Not Available	Ca; See Appendix A
US OSHA Permissible Exposure Limits (PELs) Table Z-1	titanium dioxide	Titanium dioxide - Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	titanium dioxide	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	titanium dioxide	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	titanium dioxide	Titanium dioxide	Not Available	Not Available	Not Available	Ca; See Appendix A
US OSHA Permissible Exposure Limits (PELs) Table Z-1	C.I. Pigment Blue 15	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	C.I. Pigment Blue 15	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	C.I. Pigment Blue 15	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	C.I. Pigment Blue 15	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	C.I. Pigment Blue 15	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D



Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

**Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
polyvinyl alcohol	24 mg/m3	270 mg/m3	1,600 mg/m3
glycerol	45 mg/m3	180 mg/m3	1,100 mg/m3
starch	30 mg/m3	330 mg/m3	2,000 mg/m3
petrolatum	140 mg/m3	1,500 mg/m3	8,900 mg/m3
iso-butane	5500* ppm	17000** ppm	53000*** ppm
vinylidene chloride	45 ppm	Not Available	Not Available
boric acid	6 mg/m3	23 mg/m3	830 mg/m3
titanium dioxide	30 mg/m3	330 mg/m3	2,000 mg/m3

Ingredient	Original IDLH	Revised IDLH
polyvinyl alcohol	Not Available	Not Available
glycerol	Not Available	Not Available
starch	Not Available	Not Available
petrolatum	2,500 mg/m3	Not Available
iso-butane	Not Available	Not Available
vinylidene chloride	Not Available	Not Available
alcohols C13-15- branched and linear, ethoxylated	Not Available	Not Available
boric acid	Not Available	Not Available
titanium dioxide	5,000 mg/m3	Not Available
C.I. Basic Violet 11 chloride	Not Available	Not Available
C.I. Pigment Blue 15	Not Available	Not Available

**Occupational Exposure Banding**

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
alcohols C13-15- branched and linear, ethoxylated	E	≤ 0.1 ppm
boric acid	D	> 0.01 to ≤ 0.1 mg/m <sup>3</sup>

**Notes:**

*Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.*

**Exposure controls**

<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p>
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## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air)	0.25-0.5 m/s (50-100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood - local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Assess operations based upon available dust explosion information to determine the suitability of preventative or protective systems as precautionary measures against possible dust explosions. If prevention is not possible, consider protection by use of containment, venting or suppression of dust handling equipment. Where explosion venting is considered to be the most appropriate method of protection, vent areas should preferably be calculated based on K<sub>st</sub> rather than an S<sub>t</sub> value. If nitrogen purging is considered as the protective system, it must operate with an oxygen level below the limiting oxygen concentration. The system should include an oxygen monitoring and shut-down facility in the event of excessive oxygen being detected.

The maximum surface temperature of enclosures potentially exposed to this material should be based on values obtained by taking 2/3 of the minimum ignition temperature (MIE) of the dust cloud. The effect of dust layers should be reviewed.

An isolated (insulated) human body can readily produce electrostatic discharges in excess of 50 mJ, but have been recorded up to 100 mJ.

**Individual protection measures, such as personal protective equipment**

See below

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<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▸ Safety glasses with side shields</li> <li>▸ Chemical goggles.</li> <li>▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>▸ Wear chemical protective gloves, e.g. PVC.</li> <li>▸ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▸ Overalls.</li> <li>▸ P.V.C apron.</li> <li>▸ Barrier cream.</li> <li>▸ Skin cleansing cream.</li> <li>▸ Eye wash unit.</li> </ul>

**Recommended material(s)**

**GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

Not Available

**Respiratory protection**

Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AX P1 Air-line*	- -	AX PAPR-P1 -
up to 50 x ES	Air-line**	AX P2	AX PAPR-P2
up to 100 x ES	-	AX P3 Air-line*	-
100+ x ES	-	Air-line**	AX PAPR-P3

\* - Negative pressure demand \*\* - Continuous flow  
 A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

**SECTION 9 Physical and chemical properties****Information on basic physical and chemical properties**

<b>Appearance</b>	Red, purple, pink, orange		
<b>Physical state</b>	Paste	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	Not Available	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Not Available	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

**SECTION 10 Stability and reactivity**

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

**SECTION 11 Toxicological information****Information on toxicological effects**

<b>Inhaled</b>	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.	
<b>Ingestion</b>	Methanol may produce a burning or painful sensation in the mouth, throat, chest, and stomach. This may be accompanied by nausea, vomiting, headache, dizziness, shortness of breath, weakness, fatigue, leg cramps, restlessness, confusion, drunken behaviour, visual disturbance, drowsiness, coma and death. Starch is generally of low toxicity. An abnormal craving for starch (amylophagia) during pregnancy has been recognized in certain areas. The material has NOT been classified by other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. Ingestion or skin absorption of boric acid causes nausea, abdominal pain, diarrhoea and profuse vomiting which may be blood stained, headache, weakness, reddened lesions on the skin. In severe cases, it may cause shock, with fall in blood pressure, increase in heart rate, blue skin colour, brain and nervous irritation, reduced urine volume or even absence of urine. Borate poisoning causes nausea, vomiting, diarrhoea and pain in the upper abdomen. Often persistent vomiting occurs, and there may be blood in the faeces.	
<b>Skin Contact</b>	The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Three-week dermal irritation tests using formulations containing 13% polyvinyl alcohol produced mild to moderate irritation. Boric acid is not absorbed via intact skin but absorbed on broken or inflamed skin. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.	
<b>Eye</b>	Although the material is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). A study showed eye drops containing 1.4% polyvinyl alcohol in saline did not lead to eye discomfort.	
<b>Chronic</b>	Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material. Some workers may develop chronic occupational dermatitis (generally mild) through the handling of starch products. When starch is used as a lubricant in surgical gloves, small amounts, released into the patient during the course of surgery, have resulted in granulomas and peritonitis. Chronic boric acid poisoning is characterized by mild gastrointestinal irritation, loss of appetite, disturbed digestion, nausea, possibly vomiting and a hard irregular and discoloured rash. Dryness of skin, reddening of tongue, loss of hair, inflammation of conjunctiva, and kidney injury have also been reported. Borate can accumulate in the testes and deplete germ cells and cause withering of the testicles, according to animal testing. Hair loss, skin inflammation, stomach ulcer and anaemia can all occur.	
<b>Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>Polyvinyl alcohol</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >7940 mg/kg	Skin: moderate
	Oral (Mouse) LD50: >4000 mg/kg	

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

<b>Glycerol</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (guinea pig) LD50: 58500 mg/kg	Not Available
	Inhalation(Rat) LC50: >5.85 mg/L4h	
	Oral (Mouse) LD50; 4090 mg/kg	
<b>Starch</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Skin (human): 0.3 mg/3d-I mild
<b>petrolatum</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg	Eye: no adverse effect observed (not irritating)
	Oral (Rat) LD50: >5000 mg/kg	Skin: no adverse effect observed (not irritating)
<b>iso-butane</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation(Rat) LC50: >13023 ppm4h	Not Available
<b>vinylidene chloride</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: 10000 mg/kg	Eye: adverse effect observed (irritating)
	Inhalation(Rat) LC50: 6350 ppm4h	Skin: no adverse effect observed (not irritating)
	Oral (Mouse) LD50; 194 mg/kg	
<b>alcohols C13-15- branched and linear, ethoxylated</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>boric acid</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg	Eye: no adverse effect observed (not irritating)
	Inhalation(Rat) LC50: >2.12 mg/l4h	Skin (human): 15 mg/3d -I- mild
	Oral (Rat) LD50: >2600 mg/kg	Skin: no adverse effect observed (not irritating)
<b>titanium dioxide</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Inhalation (Rat)TCLo: 0.04 mg/kg	Eye: no adverse effect observed (not irritating)
	Oral (Mouse)LD50; >10000 mg/kg *	Skin (human): 0.3 mg /3D (int)-mild *
	Oral (Mouse)TDLo: 0.0032 mg/kg	Skin: no adverse effect observed (not irritating)
	Oral (Rat)LD50: >20000 mg/kg *	
	Oral (Rat)TDLo: 60000 mg/kg	
<b>C.I. Pigment Blue 15</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg	Eye (human): non-irritant [Manuf. C.G.]
	Oral (Rat) LD50: >2000 mg/kg	Skin (human): non-irritant
<b>C.I. Basic Violet 11 chloride</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Oral (Rat) LD50: >50<300 mg/kg	Eye: adverse effect observed (irreversible damage)

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

<b>POLYVINYL ALCOHOL</b>	* Monsanto The substance has been investigated as a tumorigen.
<b>GLYCEROL</b>	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.</p> <p>At very high concentrations, evidence predicts that glycerol may cause tremor, irritation of the skin, eyes, digestive tract and airway. Otherwise it is of low toxicity. There is no significant evidence to suggest that it causes cancer, genetic, reproductive or developmental toxicity.</p>
<b>PETROLATUM</b>	<p>Dermal (rabbit) TDL<sub>0</sub>: 100 ml/kg/30D-I Tumorigenic effects.</p> <p>"Hydrocarbon wax" describes a group of solid C20 to C36 paraffinic hydrocarbons which are not absorbed in the gastro-intestinal tract and in small quantity will pass through undigested. Refined waxes are used widely in cosmetic surgery over many years and this demonstrates their low toxicity; many guidelines exist for their safe use. However, occasionally there are reports of adverse effects with these products. Deposits under the skin, referred to as "paraffinoma" have been described, but these are not normally associated with other progressive changes.</p> <p>Long-term toxicity studies indicated that petroleum-derived paraffin and microcrystalline waxes are non-toxic and do not cause cancer.</p>
<b>VINYLDENE CHLORIDE</b>	<p>For vinylidene chloride: In humans, inhaling vinylidene chloride at a concentration of 0.4% causes intoxication that may lead to unconsciousness. Stabilised vinylidene chloride also irritates the airways, eyes and skin. Prolonged or repeated exposure below levels that lead to loss of sensation has caused kidney and liver damage. In animals, acute inhalation has also caused irritation of the mucous membranes, depression of the central nervous system, and progressive toxicity to the heart (shown as a slow or irregular heartbeat); lung damage also occurred. Even low doses have caused increased DNA replication in animals, and cause kidney and liver damage if exposure is repeated. In animals, long term intermittent exposure to vinylidene chloride has clearly shown a link with development of kidney cancer. Whether or not kidney cancer is a result of genetic damage caused by vinylidene chloride is unknown. In animals, vinylidene chloride has not been found to cause genetic#5 toxicity.</p>
<b>ALCOHOLS C13-15-BRANCHED AND LINEAR, ETHOXYLATED</b>	<p>Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.</p> <p>Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to severe irritation occurred when undiluted alcohol ethoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates.</p> <p>Some of the oxidation products of this group of substances may have sensitizing properties. As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing.</p> <p>Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.</p>

~~No significant acute toxicological data identified in literature search.~~

Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

<b>titanium dioxide</b>	<p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>Exposure to titanium dioxide is via inhalation, swallowing or skin contact. When inhaled, it may deposit in lung tissue and lymph nodes causing dysfunction of the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle. It penetrated only the outermost layer of the skin, suggesting that healthy skin may be an effective barrier. There is no substantive data on genetic damage, though cases have been reported in experimental animals. Studies have differing conclusions on its cancer-causing potential.</p> <p>WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. * IUCLID</p>
<b>ALCOHOL</b>	<p>polymer with a molecular weight of 37000 was not associated with lesions. PVA has been used to cause embolization of blood vessel malformations, resulting in inflammation and tissue death of these blood vessels. PVA sponges implanted under the skin have been associated with formation of sarcomas (cancer) in animal, with thinner sponges causing more sarcoma. No tumours were noted at the site of implantation of PVA powder under the skin. Implantation of PVA sponges as a breast implant has been associated with fibrosis. No cancers were caused in an animal test where PVA was given through the vagina.</p>
<b>POLYVINYL ALCOHOL &amp; VINYLIDENE CHLORIDE</b>	<p>The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.</p>
<b>STARCH &amp; BORIC ACID &amp; titanium dioxide</b>	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.</p>

<b>Acute Toxicity</b>	✗	<b>Carcinogenicity</b>	✗
<b>Skin Irritation/Corrosion</b>	✗	<b>Reproductivity</b>	✓
<b>Serious Eye Damage/Irritation</b>	✗	<b>STOT - Single Exposure</b>	✗
<b>Respiratory or Skin sensitisation</b>	✗	<b>STOT - Repeated Exposure</b>	✗
<b>Mutagenicity</b>	✗	<b>Aspiration Hazard</b>	✗

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – No data available for the final mixture, but the level of individual ingredients are considered in the overall property.

**SECTION 12 Ecological information**

**Toxicity**

<b>Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>polyvinyl alcohol</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	BCF	1008h	Fish	<0.99	7
	LC50	96h	Fish	000mg/l	Not Available



## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

<b>glycerol</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	EC0(ECx)	24h	Crustacea	>500mg/l	1
	LC50	96h	Fish	>11mg/l	2
<b>starch</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>petrolatum</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>iso-butane</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	EC50(ECx)	96h	Algae or other aquatic plants	7.71mg/l	2
	EC50	96h	Algae or other aquatic plants	7.71mg/l	2
	LC50	96h	Fish	24.11mg/l	2
<b>vinylidene chloride</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	BCF	1008h	Fish	2.5-6.4	7
	NOEC(ECx)	Not Available	Crustacea	<2.4mg/l	1
	EC50	96h	Algae or other aquatic plants	410mg/l	1
	EC50	72h	Algae or other aquatic plants	7.42-11.3mg/l	4
	LC50	96h	Fish	57-91mg/l	4
	EC50	48h	Crustacea	37mg/l	2
<b>alcohols C13-15-branched and linear, ethoxylated</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>boric acid</b>	<b>Endpoint</b>	<b>Test Duration (hr)</b>	<b>Species</b>	<b>Value</b>	<b>Source</b>
	LC50	96h	Fish	70-80mg/l	4
	BCF	672h	Fish	<3.2	7
	EC50	72h	Algae or other aquatic plants	40.2mg/l	2
	EC50	48h	Crustacea	230mg/L	5
	NOEC(ECx)	576h	Fish	0.001mg/L	5
	EC50	96h	Algae or other aquatic plants	15.4mg/l	2

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

	Endpoint	Test Duration (hr)	Species	Value	Source
	titanium dioxide	BCF	1008h	Fish	<1.1-9.6
LC50		96h	Fish	1.85-3.06mg/l	4
EC50		72h	Algae or other aquatic plants	3.75-7.58mg/l	4
EC50		48h	Crustacea	1.9mg/l	2
EC50		96h	Algae or other aquatic plants	179.05mg/l	2
NOEC(ECx)		504h	Crustacea	0.02mg/l	4
	Endpoint	Test Duration (hr)	Species	Value	Source
	C.I. Basic Violet 11 chloride	NOEC(ECx)	72h	Algae or other aquatic plants	0.00047mg/l
EC50		72h	Algae or other aquatic plants	0.0028mg/l	2
EC50		48h	Crustacea	0.12mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	C.I. Pigment Blue 15	BCF	1008h	Fish	<0.33-11
LC50		96h	Fish	>100mg/l	2
EC50		72h	Algae or other aquatic plants	>100mg/l	2
EC50		48h	Crustacea	>100mg/l	2
EC50(ECx)		504h	Crustacea	>1mg/l	2

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
polyvinyl alcohol	LOW	LOW
glycerol	LOW	LOW
iso-butane	HIGH	HIGH
vinylidene chloride	HIGH	HIGH
boric acid	LOW	LOW
titanium dioxide	HIGH	HIGH
C.I. Pigment Blue 15	HIGH	HIGH

## Bioaccumulative potential

Ingredient	Bioaccumulation
polyvinyl alcohol	LOW (BCF = 7.5)
glycerol	LOW (LogKOW = -1.76)
iso-butane	LOW (BCF = 1.97)
vinylidene chloride	LOW (BCF = 13)
boric acid	LOW (BCF = 0)
titanium dioxide	LOW (BCF = 10)
C.I. Pigment Blue 15	LOW (BCF = 11)

## Mobility in soil

Ingredient	Mobility
polyvinyl alcohol	HIGH (KOC = 1)

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

glycerol	HIGH (KOC = 1)
iso-butane	LOW (KOC = 35.04)
vinylidene chloride	LOW (KOC = 35.04)
boric acid	LOW (KOC = 35.04)
titanium dioxide	LOW (KOC = 23.74)
C.I. Pigment Blue 15	LOW (KOC = 10000000000)

**SECTION 13 Disposal considerations****Waste treatment methods**

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▸ Containers may still present a chemical hazard/ danger when empty.</li> <li>▸ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▸ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▸ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>▸ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▸ Consult State Land Waste Authority for disposal.</li> <li>▸ Bury or incinerate residue at an approved site.</li> <li>▸ Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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**SECTION 14 Transport information****Labels Required**

<b>Marine Pollutant</b>	NO
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**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

**Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code**

Product name	Group
polyvinyl alcohol	Not Available
glycerol	Not Available
starch	Not Available
petrolatum	Not Available
iso-butane	Not Available
vinylidene chloride	Not Available
alcohols C13-15- branched and linear, ethoxylated	Not Available
boric acid	Not Available
titanium dioxide	Not Available
C.I. Basic Violet 11 chloride	Not Available

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

C.I. Pigment Blue 15	Not Available
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**Transport in bulk in accordance with the IGC Code**

Product name	Ship Type
polyvinyl alcohol	Not Available
glycerol	Not Available
starch	Not Available
petrolatum	Not Available
iso-butane	Not Available
vinylidene chloride	Not Available
alcohols C13-15- branched and linear, ethoxylated	Not Available
boric acid	Not Available
titanium dioxide	Not Available
C.I. Basic Violet 11 chloride	Not Available
C.I. Pigment Blue 15	Not Available

**SECTION 15 Regulatory information****Safety, health and environmental regulations / legislation specific for the substance or mixture****polyvinyl alcohol is found on the following regulatory lists**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**glycerol is found on the following regulatory lists**

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

**starch is found on the following regulatory lists**

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active Substances

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

**petrolatum is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
International Agency for Research on Cancer (IARC) - Agents  
Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents  
Classified by the IARC Monographs - Group 1: Carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents  
Classified by the IARC Monographs - Not Classified as Carcinogenic

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 15th Report Part A  
Known to be Human Carcinogens

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical  
Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
Substances

**iso-butane is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

US - Massachusetts - Right To Know Listed Chemicals

US Department of Homeland Security (DHS) - Chemical Facility  
Anti-Terrorism Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US Toxic Substances Control Act (TSCA) - Chemical  
Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
Substances

**vinylidene chloride is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents  
Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents  
Classified by the IARC Monographs - Group 2B: Possibly  
carcinogenic to humans

US - California Hazardous Air Pollutants Identified as Toxic Air  
Contaminants

US - California Proposition 65 - Carcinogens

US - California Proposition 65 - No Significant Risk Levels  
(NSRLs) for Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act  
of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US Department of Homeland Security (DHS) - Chemical Facility  
Anti-Terrorism Standards (CFATS) - Chemicals of Interest

US DOE Temporary Emergency Exposure Limits (TEELs)

US EPA Integrated Risk Information System (IRIS)

US EPCRA Section 313 Chemical List

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US Toxic Substances Control Act (TSCA) - Chemical  
Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
Substances

US TSCA Section 4/12 (b) - Sunset Dates/Status

US ATSDR Minimal Risk Levels for Hazardous Substances  
(MRLs)

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - List of Hazardous Substances

**alcohols C13-15-branched and linear, ethoxylated is found on the following regulatory lists**

US Toxic Substances Control Act (TSCA) - Chemical  
Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
Substances

US TSCA Section 12(b) - List of Chemical Substances Subject  
to Export Notification Requirements

## Air light clay in red, purple, pink, orange for Creative Sets (Air light clay Sets)

**boric acid is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 US DOE Temporary Emergency Exposure Limits (TEELs)  
 US EPA Integrated Risk Information System (IRIS)

US List of Active Substances Exempt from the TSCA Inventory  
 Notifications (Active-Inactive) Rule

US Toxic Substances Control Act (TSCA) - Chemical  
 Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
 Substances

**titanium dioxide is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List  
 International Agency for Research on Cancer (IARC) - Agents  
 Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents  
 Classified by the IARC Monographs - Group 2B: Possibly  
 carcinogenic to humans

International WHO List of Proposed Occupational Exposure  
 Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an  
 Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act  
 of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory  
 Notifications (Active-Inactive) Rule

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical  
 Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
 Substances

**C.I. Basic Violet 11 chloride is found on the following regulatory lists**

US List of Active Substances Exempt from the TSCA Inventory  
 Notifications (Active-Inactive) Rule

US Toxic Substances Control Act (TSCA) - Chemical  
 Substance Inventory

**C.I. Pigment Blue 15 is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure  
 Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an  
 Air Quality Episode for Air Pollutants Other Than PM-2.5

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical  
 Substance Inventory

US TSCA Chemical Substance Inventory - Interim List of Active  
 Substances

**SECTION 16 Other information****Other information**

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**End of SDS**

*This SDS is based on a review of the information and documentation supplied without further verification by Intertek as to their accuracy or completeness. It is made solely on the basis of your instructions and/or information supplied by you. We provide no warranty that the information is truly representative of the sample source. It is limited to publicly available information and the state of knowledge as at the date of this SDS, particularly with respect to the health and safety information, and this SDS should be reviewed if the composition of the formulation is changed or when new information becomes available.*