



# Barn Red Roof Coating F46784

## ICP Construction

Version No: 1.2  
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 04/20/2017  
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S.GHS.USA.EN

### SECTION 1 IDENTIFICATION

#### Product Identifier

Product name	Barn Red Roof Coating F46784
Synonyms	Not Available
Other means of identification	Not Available

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

Relevant identified uses	Roof Coating
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#### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Construction
Address	150 Dascomb Road Massachusetts Andover United States
Telephone	978-623-9980
Fax	Not Available
Website	Not Available
Email	Not Available

#### Emergency phone number

Association / Organisation	Chemtel
Emergency telephone numbers	1-800-255-3924
Other emergency telephone numbers	1-813-248-0585

### SECTION 2 HAZARD(S) IDENTIFICATION

#### Classification of the substance or mixture

Classification	Skin Sensitizer Category 1, Germ cell mutagenicity Category 1B, Carcinogenicity Category 1A, Reproductive Toxicity Category 1B, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3
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#### Label elements

GHS label elements	
SIGNAL WORD	<b>DANGER</b>

#### Hazard statement(s)

H317	May cause an allergic skin reaction.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H412	Harmful to aquatic life with long lasting effects.

#### Hazard(s) not otherwise specified

Not Applicable

#### Precautionary statement(s) Prevention

Continued...

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.

**Precautionary statement(s) Response**

P308+P313	IF exposed or concerned: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

**Precautionary statement(s) Storage**

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

P501	Dispose of contents/container in accordance with local regulations.
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**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS****Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
12251-27-3		<u>nepheline</u>
7632-00-0	<1	<u>sodium nitrite</u>
68412-54-4	<1	<u>nonylphenol ethoxylate, branched</u>
7320-34-5	<1	<u>potassium pyrophosphate</u>
7664-41-7	<1	<u>ammonia anhydrous liquefied</u>
330-54-1	<1	<u>diuron</u>
1332-58-7	<1	<u>kaolin</u>
10605-21-7	<1	<u>carbendazim</u>
2425-85-6	1-5	<u>C.I. Pigment Red 3</u>
1309-37-1	1-5	<u>ferric oxide</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 contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <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.

for diuron:

- ▶ Symptomatic and supportive action is indicated.
- ▶ Methaemoglobinaemia is possible
- ▶ if compound is hydrolysed in vivo to aniline.
- ▶ Methaemoglobinaemia causes cyanosis. Reversion of methaemoglobin to haemoglobin is spontaneous after removal from exposure, so moderate degrees of cyanosis need be treated only by supportive measures such as bed rest and oxygen inhalation.
- ▶ Thorough cleansing of the entire contaminated area of the body, including the scalp and nails is of the utmost importance.

**SECTION 5 FIRE-FIGHTING MEASURES**

**Extinguishing media**

- ▶ Jets of water.
- ▶ Water spray or fog.
- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

**Special hazards arising from the substrate or mixture**

<b>Fire Incompatibility</b>	None known.
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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 in the event of a fire.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ Use fire fighting procedures suitable for surrounding area.</li> <li>▶ <b>DO NOT</b> 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>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>▶ Non combustible.</li> <li>▶ Not considered a significant fire risk, however containers may burn.</li> </ul> <p>May emit poisonous fumes. May emit corrosive 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 breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>
<b>Major Spills</b>	<ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by all means available, spillage from entering drains or water courses.</li> <li>▶ Consider evacuation (or protect in place).</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse / absorb vapour.</li> <li>▶ Contain or absorb spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.</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 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>▶ Avoid contact with moisture.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></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> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul>
<b>Other information</b>	

**Conditions for safe storage, including any incompatibilities**

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▶ Polyethylene or polypropylene container.</li> <li>▶ Packing as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	None known

**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 Levels (PELs) - Table Z1	ammonia anhydrous liquefied	Ammonia	35 mg/m3 / 50 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ammonia anhydrous liquefied	Ammonia	25 ppm	35 ppm	Not Available	TLV® Basis: Eye dam; URT irr
US NIOSH Recommended Exposure Limits (RELs)	ammonia anhydrous liquefied	Anhydrous ammonia, Aqua ammonia, Aqueous ammonia [Note: Often used in an aqueous solution.]	18 mg/m3 / 25 ppm	27 mg/m3 / 35 ppm	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	diuron	Diuron	10 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
US NIOSH Recommended Exposure Limits (RELs)	diuron	3-(3,4-Dichlorophenyl)-1,1-dimethylurea; Direx®; Karmex®	10 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	kaolin	Kaolin / Kaolin - Respirable fraction	15 mg/m3 / 5 mg/m3	Not Available	Not Available	Total dust;(IGE)
US OSHA Permissible Exposure Levels (PELs) - Table Z3	kaolin	Silicates: Mica / Silicates: Soapstone / Silicates: Talc / Silicates: Tremolite, asbestiforms	0.1 f/cc / 20 mppcf	Not Available	Not Available	(less than 1% crystalline silica) / (containing asbestos) Use asbestos limit;(less than 1% crystalline silica) / (see 29 CFR 1910.1001);(less than 1% crystalline silica)
US ACGIH Threshold Limit Values (TLV)	kaolin	Kaolin	2 mg/m3	Not Available	Not Available	TLV® Basis: Pneumoconiosis
US NIOSH Recommended Exposure Limits (RELs)	kaolin	China clay, Clay, Hydrated aluminum silicate, Hydrate, Porcelain clay [Note: Main constituent of Kaolin is Kaolinite (Al <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> (OH) <sub>4</sub> .]	10 (total), 5 (resp) mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	ferric oxide	Iron oxide fume	10 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ferric oxide	Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	5 mg/m3	Not Available	Not Available	TLV® Basis: Pneumoconiosis
US NIOSH Recommended Exposure Limits (RELs)	ferric oxide	Iron(III)oxide, Iron oxide red, Red iron oxide, Red oxide / Ferric oxide, Iron(III) oxide	5 mg/m3	Not Available	Not Available	See Appendix D

**EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sodium nitrite	Sodium nitrite	6.4 mg/m3	71 mg/m3	240 mg/m3
nonylphenol ethoxylate, branched	Nonylphenoxypolyethoxyethanol	30 mg/m3	330 mg/m3	2,000 mg/m3
potassium pyrophosphate	Potassium pyrophosphate; (Tetrapotassium diphosphate)	61 mg/m3	680 mg/m3	1,200 mg/m3
ammonia anhydrous liquefied	Ammonia	Not Available	Not Available	Not Available
ferric oxide	Iron oxide; (Ferric oxide)	15 mg/m3	360 mg/m3	2,200 mg/m3

Ingredient	Original IDLH	Revised IDLH
nepheline	Not Available	Not Available
sodium nitrite	Not Available	Not Available
nonylphenol ethoxylate, branched	Not Available	Not Available
potassium pyrophosphate	Not Available	Not Available
ammonia anhydrous liquefied	500 ppm	300 ppm
diuron	Not Available	Not Available
kaolin	Not Available	Not Available
carbendazim	Not Available	Not Available
C.I. Pigment Red 3	Not Available	Not Available
ferric oxide	N.E. mg/m3 / N.E. ppm	2,500 mg/m3

## Exposure controls

<p><b>Appropriate engineering controls</b></p>	<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.</p> <p>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> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>▶ Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.</li> <li>▶ Work should be undertaken in an isolated system such as a "glove-box" . Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.</li> <li>▶ Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.</li> <li>▶ Open-vessel systems are prohibited.</li> <li>▶ Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.</li> <li>▶ Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system.</li> <li>▶ For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas).</li> <li>▶ Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.</li> <li>▶ Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.</li> </ul>
<p><b>Personal protection</b></p>	
<p><b>Eye and face protection</b></p>	<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>
<p><b>Skin protection</b></p>	<p>See Hand protection below</p>
<p><b>Hands/feet protection</b></p>	<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> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>• frequency and duration of contact,</li> <li>• chemical resistance of glove material,</li> <li>• glove thickness and</li> <li>• dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>• Contaminated gloves should be replaced.</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>• Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>• Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>
<p><b>Body protection</b></p>	<p>See Other protection below</p>
<p><b>Other protection</b></p>	<ul style="list-style-type: none"> <li>▶ Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]</li> <li>▶ Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges. A respirator affording higher levels of protection may be substituted. [AS/NZS 1715</li> </ul>

	<ul style="list-style-type: none"> <li>▶ or national equivalent]</li> <li>▶ Emergency deluge showers and eyewash fountains, supplied with potable water, should be located near, within sight of, and on the same level with locations where direct exposure is likely.</li> <li>▶ Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels. For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood.</li> <li>▶ Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>
<b>Thermal hazards</b>	Not Available

**Respiratory protection**

Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

Appearance	Text		
<b>Physical state</b>	liquid	<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</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 (g/L)</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>	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
<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 (as classified by EC Directives using animal models). 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>	The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
<b>Skin Contact</b>	<p>Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.</p> <p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p>

<b>Eye</b>	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).								
<b>Chronic</b>	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There is sufficient evidence to suggest that this material directly causes cancer in humans. Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Ample evidence exists from experimentation that reduced human fertility is directly caused by exposure to the material. Chronic effects of exposure to diuron may include skin irritation, abnormal pigmentation, growth retardation, blurring of vision, abnormal liver, spleen and thyroid effects; red blood cell destruction, or reduction of the blood's oxygen carrying capacity causing bluish discoloration and breathlessness. Benzimidazoles are shown to impair embryonic development and cause genetic abnormalities (often errors in the number of chromosomes). Their activity in the body may also cause cancer and genetic defects by interfering with nucleic acids function.								
<b>Barn Red Roof Coating F46784</b>	<table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Not Available</td> <td>Not Available</td> </tr> </tbody> </table>	TOXICITY	IRRITATION	Not Available	Not Available				
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<b>nepheline</b>	<table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Not Available</td> <td>Not Available</td> </tr> </tbody> </table>	TOXICITY	IRRITATION	Not Available	Not Available				
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<b>sodium nitrite</b>	<table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Inhalation (rat) LC50: 0.0055 mg/L/4hr<sup>[2]</sup></td> <td rowspan="2">Eye (rabbit): 500 mg/24hr - mild</td> </tr> <tr> <td>Oral (rat) LD50: 157.9 mg/kg<sup>[2]</sup></td> </tr> </tbody> </table>	TOXICITY	IRRITATION	Inhalation (rat) LC50: 0.0055 mg/L/4hr <sup>[2]</sup>	Eye (rabbit): 500 mg/24hr - mild	Oral (rat) LD50: 157.9 mg/kg <sup>[2]</sup>			
TOXICITY	IRRITATION								
Inhalation (rat) LC50: 0.0055 mg/L/4hr <sup>[2]</sup>	Eye (rabbit): 500 mg/24hr - mild								
Oral (rat) LD50: 157.9 mg/kg <sup>[2]</sup>									
<b>nonylphenol ethoxylate, branched</b>	<table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Dermal (rabbit) LD50: 2640 mg/kg<sup>[1]</sup></td> <td>Eye : Severe</td> </tr> <tr> <td>Oral (rat) LD50: &gt;15 mg/kg<sup>[1]</sup></td> <td>Skin : Severe</td> </tr> </tbody> </table>	TOXICITY	IRRITATION	Dermal (rabbit) LD50: 2640 mg/kg <sup>[1]</sup>	Eye : Severe	Oral (rat) LD50: >15 mg/kg <sup>[1]</sup>	Skin : Severe		
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<b>C.I. Pigment Red 3</b>	<table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Oral (rat) LD50: &gt;5000 mg/kg<sup>[2]</sup></td> <td>Eye (human): non irritant</td> </tr> <tr> <td></td> <td>Skin (human): non irritant</td> </tr> </tbody> </table>	TOXICITY	IRRITATION	Oral (rat) LD50: >5000 mg/kg <sup>[2]</sup>	Eye (human): non irritant		Skin (human): non irritant		
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<b>ferric oxide</b>	<table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Oral (rat) LD50: &gt;5000 mg/kg<sup>[1]</sup></td> <td>Not Available</td> </tr> </tbody> </table>	TOXICITY	IRRITATION	Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>	Not Available				
TOXICITY	IRRITATION								
Oral (rat) LD50: >5000 mg/kg <sup>[1]</sup>	Not Available								

**Legend:**

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. \* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

<b>NEPHELINE</b>	No data available No data available
<b>SODIUM NITRITE</b>	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Tumorigenic - Carcinogenic by RTECS criteria.
<b>NONYLPHENOL ETHOXYLATE, BRANCHED</b>	Human beings 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 ingestion, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that volumes well above a reasonable intake level would have to occur to produce any toxic response. 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. Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma.
<b>POTASSIUM PYROPHOSPHATE</b>	No data available. Data for sodium analogue only. tetrasodium pyrophosphate
<b>DIURON</b>	Diuron is absorbed readily through the gut and lungs while uptake through the skin is more limited. It is slightly toxic to mammals but juveniles are more susceptible than adults(18). The oral LD50 in rats is 3-4 g/kg and the dermal LD50 is > 2 g/kg(19). Note: Equivocal animal tumorigenic agent by RTECS criteria. NOTE: This substance may contain impurities (tetrachlorazobenzene and tetrachloroazoxybenzene). Maximum impurity levels are proscribed under various jurisdictions ADI: 0.006 mg/kg/day NOEL: 0.625 mg/kg/day
<b>KAOLIN</b>	for bentonite clays: Bentonite (CAS No. 1302-78-9) consists of a group of clays formed by crystallisation of vitreous volcanic ashes that were deposited in water. The expected acute oral toxicity of bentonite in humans is very low (LD50>15 g/kg). However, severe anterior segment inflammation, uveitis and retrocorneal abscess from eye exposure were reported when bentonite had been used as a prophypaste.
<b>CARBENDAZIM</b>	Benomyl (a precursor of carbendazim) sensitises skin in humans. Benomyl and carbendazim represent a very low risk for acute poisoning in humans. Carbendazim has low acute toxicity and is excreted in the urine. [ * The Pesticides Manual, Incorporating The Agrochemicals Handbook, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protection Council] Intraperitoneal (Rat, adult male) LD50: 7320 mg/kg * Intraperitoneal (Rat, adult female) LD50: 15000 mg/kg * Inhalation LC50 (4 h) for rats, rabbits, guinea pigs or cats no effect with suspension (10 g/l water). * NOEL ( 2 y) for dogs 300 mg/kg diet, corresponding to 6-7 mg/kg b.w. ADI 0.01 mg/kg b.w. * Toxicity Class WHO III;EPA IV
<b>C.I. PIGMENT RED 3</b>	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Detailed analysis of molecular structure indicates that the azo colourant can split off cancer-causing arylamines. The azo linkage, a double bond between two nitrogen atoms, is considered the most unstable part of an azo dye. The substance is classified by IARC as Group 3: <b>NOT</b> classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. Bacterial mutagen Subchronic or Prechronic Exposure: Treatment of F344 rats and B6C3F1 mice with C.I. Pigment Red 3 in the diet (10, 5.0, 2.5, 1.25, 0.6 or 0.3%) for 14 and 90 days resulted in haematological alterations consistent with haemolytic anemia. Rats appeared to be more sensitive than mice to the haematological effects. Long-term dietary administration resulted in the development of tumours of the liver, skin, adrenals and Zymbal gland in rats and kidney and thyroid tumors in mice. An Ames bacterial test has given evidence of weak mutagenicity, but no chromosome effects were seen in mammalian cells in culture.[ Under the conditions of a 2 yr feed study, there was some evidence of carcinogenic activity of C.I. Pigment Red 3 in male F344/N rats as exhibited by increased incidences of benign pheochromocytomas of the adrenal gland. The marginal increase in the incidences of squamous cell papillomas of the skin and Zymbals gland carcinomas may have been related to C.I.
<b>POTASSIUM PYROPHOSPHATE &amp; AMMONIA ANHYDROUS LIQUEFIED &amp; FERRIC OXIDE</b>	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
<b>AMMONIA ANHYDROUS LIQUEFIED &amp; DIURON &amp; KAOLIN</b>	No significant acute toxicological data identified in literature search.

<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 available but does not fill the criteria for classification  
✔ – Data available to make classification  
☹ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

### Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
sodium nitrite	LC50	96	Fish	0.048mg/L	4
sodium nitrite	EC50	48	Crustacea	ca.12.5100mg/L	1
sodium nitrite	EC50	96	Algae or other aquatic plants	12.537mg/L	3
sodium nitrite	EC50	216	Crustacea	1.8mg/L	4
sodium nitrite	NOEC	2	Fish	0.02mg/L	4
nonylphenol ethoxylate, branched	LC50	96	Fish	0.136mg/L	2

nonylphenol ethoxylate, branched	NOEC	2184	Fish	ca.0.006mg/L	2
ammonia anhydrous liquefied	LC50	96	Fish	0.068mg/L	2
ammonia anhydrous liquefied	EC50	48	Crustacea	0.179mg/L	5
ammonia anhydrous liquefied	EC50	96	Algae or other aquatic plants	311.661mg/L	3
ammonia anhydrous liquefied	EC50	1440	Crustacea	0.016mg/L	5
ammonia anhydrous liquefied	NOEC	Not Applicable	Fish	0.0015mg/L	5
diuron	LC50	96	Fish	0.5mg/L	4
diuron	EC50	48	Crustacea	1.4mg/L	1
diuron	EC50	72	Algae or other aquatic plants	0.00055mg/L	4
diuron	BCF	792	Algae or other aquatic plants	0.159mg/L	4
diuron	EC50	336	Algae or other aquatic plants	0.00035mg/L	4
diuron	NOEC	336	Algae or other aquatic plants	0.000005mg/L	4
carbendazim	LC50	96	Fish	0.007mg/L	4
carbendazim	EC50	48	Crustacea	0.02mg/L	4
carbendazim	EC50	96	Algae or other aquatic plants	3.945mg/L	3
carbendazim	EC50	24	Crustacea	0.0035mg/L	4
carbendazim	NOEC	480	Crustacea	<0.0031mg/L	4
C.I. Pigment Red 3	LC50	96	Fish	0.082mg/L	3
C.I. Pigment Red 3	EC50	96	Algae or other aquatic plants	0.018mg/L	3
C.I. Pigment Red 3	NOEC	72	Algae or other aquatic plants	>0.006mg/L	2
ferric oxide	LC50	96	Fish	0.05mg/L	2
ferric oxide	EC50	72	Algae or other aquatic plants	18mg/L	2
ferric oxide	EC50	504	Crustacea	4.49mg/L	2
ferric oxide	NOEC	504	Fish	0.52mg/L	2

**Legend:**

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Diuron: Vapor pressure: 6.90 x10<sup>-8</sup> mm Hg (25 C); Henry's law constant: 5.10 x 10<sup>-10</sup> atm m<sup>3</sup> mol<sup>-1</sup>.

Atmospheric Fate: Diuron is non-volatile in the atmosphere and is unlikely to be dispersed over large areas. Diuron has a low tendency to volatilize from water or moist soils. Volatilization is insignificant except when diuron is exposed on the soil surface for several days or weeks under hot, dry conditions. Photolysis is generally not a principal route of diuron degradation in aqueous systems.

Terrestrial Fate: Soil - Microbial degradation is the primary means of diuron dissipation from soil. Tetrachloroazobenzene (TCAB) and tetrachloroazoxybenzene (TCAOB) sorb very strongly to soils and are not likely to leach. Diuron leaching is greatest in soils low in organic matter and soils with high permeability to water, such as coarse soils. Diuron is moderately to highly persistent in soils. The average field half-life is 90 days; however, half-lives are highly variable. Photodegradation is not considered a primary dissipation route, but losses can be significant if diuron remains on the soil surface for several days or weeks. Diuron is mobile in soil and has a relatively low tendency to sorb to soils and sediments. Plants - Residues, at levels toxic to plants, generally dissipate within a season when applied at low selective rates. At higher application rates, residues may persist for more than one year. Diuron is readily absorbed through the root system of plants and less readily through the leaves and stems. Diuron inhibits plant photosynthesis.

Aquatic Fate: Photolysis is not a principal route for degradation in aqueous systems. Diuron is both mobile and relatively persistent in aqueous systems, and is prone to off-site movement in surface runoff and migration to ground water. Microbes are the primary agents in the degradation of diuron in aquatic environments. Reductive dechlorination of the product has been observed in anaerobic pond sediments.

Ecotoxicity: Diuron is slightly toxic to bobwhite quail and practically nontoxic to mallard duck. Diuron is also slightly toxic to bluegill sunfish and moderately toxic to rainbow trout and sheepshead minnow. Diuron is highly toxic to Daphnia magna water fleas but not acutely toxic to honey bees. Diuron has been attributed to unnatural shell thickening in the Pacific oyster. Little tissue storage in mammals is anticipated. Diuron is toxic to fish and aquatic invertebrates.

**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium nitrite	LOW	LOW
ammonia anhydrous liquefied	LOW	LOW
diuron	HIGH	HIGH
carbendazim	HIGH	HIGH
C.I. Pigment Red 3	HIGH	HIGH

**Bioaccumulative potential**

Ingredient	Bioaccumulation
sodium nitrite	LOW (LogKOW = 0.0564)
ammonia anhydrous liquefied	LOW (LogKOW = 0.229)
diuron	LOW (BCF = 14)

carbendazim	LOW (BCF = 3.5)
C.I. Pigment Red 3	LOW (BCF = 2.9)

**Mobility in soil**

Ingredient	Mobility
sodium nitrite	LOW (KOC = 23.74)
ammonia anhydrous liquefied	LOW (KOC = 14.3)
diuron	LOW (KOC = 136)
carbendazim	LOW (KOC = 175.8)
C.I. Pigment Red 3	LOW (KOC = 69830)

**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> </ul> <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</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

**SECTION 15 REGULATORY INFORMATION****Safety, health and environmental regulations / legislation specific for the substance or mixture****NEPHELINE(12251-27-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

Not Applicable

**SODIUM NITRITE(7632-00-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

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

US - Massachusetts - Right To Know Listed Chemicals

US - Pennsylvania - Hazardous Substance List

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

US EPCRA Section 313 Chemical List

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

**NONYLPHENOL ETHOXYLATE, BRANCHED(68412-54-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants

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

**POTASSIUM PYROPHOSPHATE(7320-34-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

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

**AMMONIA ANHYDROUS LIQUEFIED(7664-41-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

- International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft
- US - Alaska Limits for Air Contaminants
- US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELEs)
- US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELEs)
- US - California Permissible Exposure Limits for Chemical Contaminants
- US - Hawaii Air Contaminant Limits
- US - Idaho - Limits for Air Contaminants
- US - Massachusetts - Right To Know Listed Chemicals
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELEs)
- US - Oregon Permissible Exposure Limits (Z-1)
- US - Pennsylvania - Hazardous Substance List
- US - Rhode Island Hazardous Substance List
- US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values
- US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
- US ACGIH Threshold Limit Values (TLV)
- US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
- US CWA (Clean Water Act) - List of Hazardous Substances
- US EPCRA Section 313 Chemical List
- US NIOSH Recommended Exposure Limits (RELEs)
- US OSHA Permissible Exposure Levels (PELEs) - Table Z1
- US SARA Section 302 Extremely Hazardous Substances
- US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**DIURON(330-54-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

- US - Alaska Limits for Air Contaminants
- US - California Permissible Exposure Limits for Chemical Contaminants
- US - California Proposition 65 - Carcinogens
- US - Hawaii Air Contaminant Limits
- US - Massachusetts - Right To Know Listed Chemicals
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELEs)
- US - Pennsylvania - Hazardous Substance List
- US - Rhode Island Hazardous Substance List
- US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US ACGIH Threshold Limit Values (TLV)
- US ACGIH Threshold Limit Values (TLV) - Carcinogens
- US CWA (Clean Water Act) - List of Hazardous Substances
- US EPCRA Section 313 Chemical List
- US NIOSH Recommended Exposure Limits (RELEs)
- US Priority List for the Development of Proposition 65 Safe Harbor Levels - No Significant Risk Levels (NSRLs) for Carcinogens and Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**KAOLIN(1332-58-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

- US - Alaska Limits for Air Contaminants
- US - California Permissible Exposure Limits for Chemical Contaminants
- US - Hawaii Air Contaminant Limits
- US - Idaho - Limits for Air Contaminants
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELEs)
- US - Oregon Permissible Exposure Limits (Z-1)
- US - Pennsylvania - Hazardous Substance List
- US - Rhode Island Hazardous Substance List
- US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants

- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
- US ACGIH Threshold Limit Values (TLV)
- US ACGIH Threshold Limit Values (TLV) - Carcinogens
- US NIOSH Recommended Exposure Limits (RELEs)
- US OSHA Permissible Exposure Levels (PELEs) - Table Z1
- US OSHA Permissible Exposure Levels (PELEs) - Table Z3
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**CARBENDAZIM(10605-21-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

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

**C.I. PIGMENT RED 3(2425-85-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

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

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

**FERRIC OXIDE(1309-37-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
- US - Alaska Limits for Air Contaminants
- US - California Permissible Exposure Limits for Chemical Contaminants
- US - Hawaii Air Contaminant Limits
- US - Idaho - Limits for Air Contaminants
- US - Massachusetts - Right To Know Listed Chemicals
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELEs)
- US - Oregon Permissible Exposure Limits (Z-1)
- US - Pennsylvania - Hazardous Substance List
- US - Rhode Island Hazardous Substance List

- US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
- US ACGIH Threshold Limit Values (TLV)
- US ACGIH Threshold Limit Values (TLV) - Carcinogens
- US NIOSH Recommended Exposure Limits (RELEs)
- US OSHA Permissible Exposure Levels (PELEs) - Table Z1
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

**Federal Regulations**

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SECTION 311/312 HAZARD CATEGORIES**

Immediate (acute) health hazard	Yes
Delayed (chronic) health hazard	Yes
Fire hazard	No
Pressure hazard	No

Reactivity hazard

No

**US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)**

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Sodium nitrite	100	45.4
Ammonia	100	45.4
Diuron	100	45.4
Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	10	4.54

**State Regulations****US. CALIFORNIA PROPOSITION 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

**US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE**

Diuron Listed

National Inventory	Status
Australia - AICS	N (nepheline)
Canada - DSL	Y
Canada - NDSL	N (kaolin; nepheline; diuron; carbendazim; sodium nitrite; ammonia anhydrous liquefied; potassium pyrophosphate; ferric oxide; C.I. Pigment Red 3; nonylphenol ethoxylate, branched)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (nepheline)
Japan - ENCS	N (kaolin; nepheline; nonylphenol ethoxylate, branched)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	N (nepheline)
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION****CONTACT POINT**

\*\*PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES\*\*

**Other information****Ingredients with multiple cas numbers**

Name	CAS No
nepheline	12251-27-3, 37244-96-5
C.I. Pigment Red 3	2425-85-6, 12238-48-1, 12240-01-6, 39310-30-0, 78690-69-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

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.

**Definitions and abbreviations**

PC – TWA: Permissible Concentration-Time Weighted Average  
 PC – STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 STEL: Short Term Exposure Limit  
 TEEL: Temporary Emergency Exposure Limit,  
 IDLH: Immediately Dangerous to Life or Health Concentrations  
 OSF: Odour Safety Factor  
 NOAEL: No Observed Adverse Effect Level  
 LOAEL: Lowest Observed Adverse Effect Level  
 TLV: Threshold Limit Value  
 LOD: Limit Of Detection  
 OTV: Odour Threshold Value  
 BCF: BioConcentration Factors  
 BEI: Biological Exposure Index

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