Work Paint Enamel Alk.-Bright Red F66687

ICP Construction

Version No: **1.3**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

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S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Work Paint Enamel Alk.-Bright Red F66687
Synonyms	Not Available
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	Paint

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	Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2

Label elements

GHS label elements	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

Continued...

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331	Do NOT induce vomiting.
P362	Take off contaminated clothing and wash before reuse.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64742-47-8	25.74	distillates, petroleum, light, hydrotreated
1330-20-7	1.19	xylene
100-41-4	0.28	ethylbenzene
14808-60-7	0.02	silica crystalline - quartz
not avail.	2.2	Non-hazardous ingredient
8052-41-3.	0.82-0.86	white spirit
64742-88-7	0.18	solvent naphtha petroleum, medium aliphatic
2425-85-6	17.4	C.I. Pigment Red 3
1309-37-1	1	ferric oxide
51274-00-1	0.9	C.I. Pigment Yellow 42
471-34-1	0.05	calcium carbonate
681-84-5	0.2	methyl silicate

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. ▸ If swallowed do **NOT** induce vomiting. ▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▸ Observe the patient carefully. ▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▸ Seek medical advice. ▸ Avoid giving milk or oils. ▸ Avoid giving alcohol.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.
For acute or short term repeated exposures to xylene:

- Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- Pulmonary absorption is rapid with about 60-65% retained at rest.
- Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 < 50 mm Hg or pCO2 > 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.

Continued...

- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
Methylhippu-ric acids in urine	1.5 gm/gm creatinine	End of shift	
	2 mg/min	Last 4 hrs of shift	

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

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Special protective equipment and precautions for fire-fighters

Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO_2) nitrogen oxides (NOx) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

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

Minor Spills	Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 HANDLING AND STORAGE

Continued...

Precautions for safe handling

Safe handling	- Electrostatic discharge may be generated during pumping - this may result in fire. - Ensure electrical continuity by bonding and grounding (earthing) all equipment. - Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). - Avoid splash filling. - Do NOT use compressed air for filling discharging or handling operations. - Avoid all personal contact, including inhalation. - Wear protective clothing when risk of exposure occurs. - Use in a well-ventilated area. - Prevent concentration in hollows and sumps. - **DO NOT** enter confined spaces until atmosphere has been checked. - Avoid smoking, naked lights or ignition sources. - Avoid contact with incompatible materials. - When handling, **DO NOT** eat, drink or smoke. - Keep containers securely sealed when not in use. - Avoid physical damage to containers. - Always wash hands with soap and water after handling. - Work clothes should be laundered separately. - Use good occupational work practice. - Observe manufacturer's storage and handling recommendations contained within this SDS. - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. - **DO NOT** allow clothing wet with material to stay in contact with skin
Other information	- Store in original containers. - Keep containers securely sealed. - No smoking, naked lights or ignition sources. - Store in a cool, dry, well-ventilated area. - Store away from incompatible materials and foodstuff containers. - Protect containers against physical damage and check regularly for leaks. - Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	- Metal can or drum - Packaging as recommended by manufacturer. - Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Xylenes: - may ignite or explode in contact with strong oxidisers, 1,3-dichloro-5,5-dimethylhydantoin, uranium fluoride - attack some plastics, rubber and coatings - may generate electrostatic charges on flow or agitation due to low conductivity. - Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents. - Aromatics can react exothermically with bases and with diazo compounds. For alkyl aromatics: The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring. - Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation product formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond whilst a tertiary C-H bond is even more susceptible to attack by oxygen - Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthalenes mainly produce the corresponding naphthalene carboxylic acids. - Oxidation in the presence of transition metal salts not only accelerates but also selectively decomposes the hydroperoxides. - Hock-rearrangement by the influence of strong acids converts the hydroperoxides to hemiacetals. Peresters formed from the hydroperoxides undergo Criegee rearrangement easily. - Alkali metals accelerate the oxidation while CO2 as co-oxidant enhances the selectivity. - Microwave conditions give improved yields of the oxidation products. - Photo-oxidation products may occur following reaction with hydroxyl radicals and NOx - these may be components of photochemical smogs. Oxidation of Alkylaromatics: T.S.S Rao and Shubhra Awasthi: E-Journal of Chemistry Vol 4, No. 1, pp 1-13 January 2007

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	distillates, petroleum, light, hydrotreated	Oil mist, mineral	5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	distillates, petroleum, light, hydrotreated	Mineral oil, excluding metal working fluids - Pure, highly and severely refined / Mineral oil, excluding metal working fluids - Poorly and mildly refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
US NIOSH Recommended Exposure Limits (RELs)	distillates, petroleum, light, hydrotreated	Heavy mineral oil mist, Paraffin oil mist, White mineral oil mist	5 mg/m3	10 mg/m3	Not Available	Not Available

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US OSHA Permissible Exposure Levels (PELs) - Table Z1	xylene	Xylenes (o-, m-, p-isomers)	435 mg/m3 / 100 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	xylene	Xylene (all isomers)	100 ppm	150 ppm	Not Available	TLV® Basis: URT & eye irr; CNS impair; BEI
US OSHA Permissible Exposure Levels (PELs) - Table Z1	ethylbenzene	Ethyl benzene	435 mg/m3 / 100 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ethylbenzene	Ethyl benzene	20 ppm	Not Available	Not Available	TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair; BEI
US NIOSH Recommended Exposure Limits (RELs)	ethylbenzene	Ethylbenzol, Phenylethane	435 mg/m3 / 100 ppm	545 mg/m3 / 125 ppm	Not Available	Not Available
US OSHA Permissible Exposure Levels (PELs) - Table Z1	silica crystalline - quartz	Silica, crystalline quartz, respirable dust	Not Available	Not Available	Not Available	See Table Z-3
US OSHA Permissible Exposure Levels (PELs) - Table Z3	silica crystalline - quartz	Silica: Crystalline Quartz	10/(% SiO2+ 2) mg/m3 / 30/(% SiO2+ 2) mg/m3 / 250/(%SiO2+5) mppcf	Not Available	Not Available	(Respirable);(TWA mppcf (The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable)); (TWA mg/m3 (e)) / (Total Dust)
US NIOSH Recommended Exposure Limits (RELs)	silica crystalline - quartz	Cristobalite, Quartz, Tridymite, Tripoli	0.05 mg/m3	Not Available	Not Available	Ca See Appendix A
US OSHA Permissible Exposure Levels (PELs) - Table Z1	white spirit	Stoddard solvent	2900 mg/m3 / 500 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	white spirit	Stoddard solvent	100 ppm	Not Available	Not Available	TLV® Basis: Eye, skin, & kidney dam; nausea; CNS impair
US NIOSH Recommended Exposure Limits (RELs)	white spirit	Dry cleaning safety solvent, Mineral spirits, Petroleum solvent, Spotting naphtha [Note: A refined petroleum solvent with a flash point of 102-110°F, boiling point of 309-396°F, and containing >65% C10 or higher hydrocarbons.]	350 mg/m3	Not Available	1800 mg/m3	[15-minute]
US OSHA Permissible Exposure Levels (PELs) - Table Z1	solvent naphtha petroleum, medium aliphatic	Oil mist, mineral	5 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	solvent naphtha petroleum, medium aliphatic	Mineral oil, excluding metal working fluids - Pure, highly and severely refined / Mineral oil, excluding metal working fluids - Poorly and mildly refined	5 mg/m3	Not Available	Not Available	TLV® Basis: URT irr
US NIOSH Recommended Exposure Limits (RELs)	solvent naphtha petroleum, medium aliphatic	Heavy mineral oil mist, Paraffin oil mist, White mineral oil mist	5 mg/m3	10 mg/m3	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 (Fe203)	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
US OSHA Permissible Exposure Levels (PELs) - Table Z1	calcium carbonate	Calcium carbonate / Calcium carbonate - Respirable fraction	15 mg/m3 / 5 mg/m3	Not Available	Not Available	Total dust
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Calcium carbonate, Natural calcium carbonate [Note: Calcite & aragonite are commercially important natural calcium carbonates.] / Calcium carbonate, Natural calcium carbonate [Note: Marble is a metamorphic form of calcium carbonate.]	10 (total), 5 (resp) mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	calcium carbonate	Calcium salt of carbonic acid [Note: Occurs in nature as as limestone, chalk, marble, dolomite, aragonite, calcite and	10 (total), 5 (resp) mg/m3	Not Available	Not Available	Not Available

Continued...

		oyster shells.]				
US OSHA Permissible Exposure Levels (PELs) - Table Z1	methyl silicate	Silicates - Mica / Silicates - Soapstone / Silicates-Soapstone / Silicates - Talc / Silicates - Tremolite, asbestiform	0.1 mg/m3	Not Available	Not Available	See Table Z-3;less than 1% crystalline silica(respirable dust) / See Table Z-3;less than 1% crystalline silica, total dust / See Table Z-3;less than 1% crystalline silica, respirable dust / less than 1% crystalline silica;see 29 CFR 1910.1001;See Table Z-3;(containing asbestos); use asbestos limit; (STEL (Excursion limit)(as averaged over a sampling period of 30 minutes)) / less than 1% crystalline silica;See Table Z-3,(containing no asbestos), respirable dust / (as quartz), respirable dust;ess than 1% crystalline silica;see 1910.1001;(STEL (Excursion limit)(as averaged over a sampling period of 30 minutes))
US OSHA Permissible Exposure Levels (PELs) - Table Z3	methyl silicate	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)	methyl silicate	Methyl silicate	1 ppm	Not Available	Not Available	TLV® Basis: URT irr; eye dam
US NIOSH Recommended Exposure Limits (RELs)	methyl silicate	Methyl orthosilicate, Tetramethoxysilane, Tetramethyl ester of silicic acid, Tetramethyl silicate	6 mg/m3 / 1 ppm	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
xylene	Xylenes	Not Available	Not Available	Not Available
ethylbenzene	Ethyl benzene	Not Available	Not Available	Not Available
silica crystalline - quartz	Silica, crystalline-quartz; (Silicon dioxide)	0.075 mg/m3	33 mg/m3	200 mg/m3
white spirit	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	300 mg/m3	1,800 mg/m3	29500 mg/m3
ferric oxide	Iron oxide; (Ferric oxide)	15 mg/m3	360 mg/m3	2,200 mg/m3
calcium carbonate	Limestone; (Calcium carbonate; Dolomite)	45 mg/m3	500 mg/m3	3,000 mg/m3
calcium carbonate	Carbonic acid, calcium salt	45 mg/m3	210 mg/m3	1,300 mg/m3
methyl silicate	Tetramethoxysilane; (Methyl silicate)	0.083 ppm	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
distillates, petroleum, light, hydrotreated	Not Available	Not Available
xylene	1,000 ppm	900 ppm
ethylbenzene	2,000 ppm	800 [LEL] ppm
silica crystalline - quartz	N.E. mg/m3 / N.E. ppm	50 mg/m3
Non-hazardous ingredient	Not Available	Not Available
white spirit	29,500 mg/m3	20,000 mg/m3
solvent naphtha petroleum, medium aliphatic	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
C.I. Pigment Yellow 42	Not Available	Not Available
calcium carbonate	Not Available	Not Available
methyl silicate	Not Available	Not Available

Exposure controls

Appropriate engineering 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. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear 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.)

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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.

Personal protection

Eye and face protection

- Safety glasses with side shields.
- Chemical goggles.
- 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]

Skin protection

See Hand protection below

Hands/feet protection

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber

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.
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.
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.
Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- 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.
- 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.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.
- Contaminated gloves should be replaced.

For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.
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.
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.
Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- 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.
- 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

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.

Body protection

See Other protection below

Other protection

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

Thermal hazards

Not Available

Respiratory protection

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.

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Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class 1	-
up to 50	1000	-	A-AUS / Class 1
up to 50	5000	Airline *	-
up to 100	5000	-	A-2
up to 100	10000	-	A-3
100+		-	Airline**

* - Continuous Flow
** - Continuous-flow or positive pressure demand.
A(All classes) = Organic vapours, B AUS or B1 = Acid gases, 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 deg C)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Text

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

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	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. Headache, fatigue, tiredness, irritability and digestive disturbances (nausea, loss of appetite and bloating) are the most common symptoms of xylene overexposure. Injury to the heart, liver, kidneys and nervous system has also been noted amongst workers. Xylene is a central nervous system depressant
Ingestion	Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733) The material has **NOT** 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.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition 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. 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.

Continued...

Eye	This material can cause eye irritation and damage in some persons.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.

Work Paint Enamel Alk.-Bright Red F66687

TOXICITY	IRRITATION
Not Available	Not Available

distillates, petroleum, light, hydrotreated

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >2000 mg/kg[1]	Not Available
Oral (rat) LD50: >5000 mg/kg[1]	

xylene

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >1700 mg/kg[2]	Eye (human): 200 ppm irritant
Inhalation (rat) LC50: 5000 ppm/4hr[2]	Eye (rabbit): 5 mg/24h SEVERE
Oral (rat) LD50: 4300 mg/kg[2]	Eye (rabbit): 87 mg mild
	Skin (rabbit):500 mg/24h moderate

ethylbenzene

TOXICITY	IRRITATION
Dermal (rabbit) LD50: ca.15432.6 mg/kg[1]	Eye (rabbit): 500 mg - SEVERE
Inhalation (mouse) LC50: 35.5 mg/L/2hr[2]	Skin (rabbit): 15 mg/24h mild
Inhalation (rat) LC50: 55 mg/L/2hr[2]	
Oral (rat) LD50: 3500 mg/kg[2]	

silica crystalline - quartz

TOXICITY	IRRITATION
Not Available	Not Available

Non-hazardous ingredient

TOXICITY	IRRITATION
Not Available	Not Available

white spirit

TOXICITY	IRRITATION
Inhalation (rat) LC50: >1400 ppm/8hr[2]	Eye (human): 470 ppm/15m
	Eye (rabbit): 500 mg/24h moderate

solvent naphtha petroleum, medium aliphatic

TOXICITY	IRRITATION
dermal (rat) LD50: 28000 mg/kg[2]	Not Available
Oral (rat) LD50: >19650 mg/kg[2]	

C.I. Pigment Red 3

TOXICITY	IRRITATION
Oral (rat) LD50: >5000 mg/kg[2]	Eye (human): non irritant
	Skin (human): non irritant

ferric oxide

TOXICITY	IRRITATION
Oral (rat) LD50: >5000 mg/kg[1]	Not Available

C.I. Pigment Yellow 42

TOXICITY	IRRITATION
Oral (rat) LD50: >5000 mg/kg[2]	Not Available

calcium carbonate

TOXICITY	IRRITATION
dermal (rat) LD50: >2000 mg/kg[1]	Eye (rabbit): 0.75 mg/24h - SEVERE
Oral (rat) LD50: >2000 mg/kg[1]	Skin (rabbit): 500 mg/24h-moderate

Continued...

	TOXICITY	IRRITATION
methyl silicate	Dermal (rabbit) LD50: 17394.4 mg/kg[2]	Eye (rabbit); 0.25 mg (open) -
	Oral (mammal) LD50: 1000 mg/kg[2]	

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*

DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED	Kerosene may produce varying ranges of skin irritation, and a reversible eye irritation (if eyes are washed). Skin may be cracked or flaky and/or leathery, with crusts and/or hair loss. It may worsen skin cancers.
XYLENE	Reproductive effector in rats
ETHYLBENZENE	Ethylbenzene is readily absorbed when inhaled, swallowed or in contact with the skin. It is distributed throughout the body, and passed out through urine. It may irritate the skin, eyes and may cause hearing loss if exposed to high doses. **NOTE:** Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. Liver changes, utheral tract, effects on fertility, foetotoxicity, specific developmental abnormalities (musculoskeletal system) recorded.
SILICA CRYSTALLINE - QUARTZ	**WARNING:** For inhalation exposure ONLY: This substance has been classified by the IARC as Group 1: **CARCINOGENIC TO HUMANS** The International Agency for Research on Cancer (IARC) has classified occupational exposures to **respirable** (<5 um) crystalline silica as being carcinogenic to humans . This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease.
WHITE SPIRIT	white spirit, as CAS RN 8052-41-3
SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC	Studies indicate that normal, branched and cyclic paraffins are absorbed from the mammalian gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length,with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent that iso- or cyclo-paraffins. The major classes of hydrocarbons have been shown to be well absorbed by the gastrointestinal tract in various species. for full range naphthas
C.I. PIGMENT RED 3	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. 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.
CALCIUM CARBONATE	No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.
DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED & C.I. PIGMENT YELLOW 42	No significant acute toxicological data identified in literature search.
XYLENE & ETHYLBENZENE & CALCIUM CARBONATE & METHYL SILICATE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
XYLENE & ETHYLBENZENE & CALCIUM CARBONATE	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.
XYLENE & SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC & C.I. PIGMENT RED 3 & C.I. PIGMENT YELLOW 42	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.
WHITE SPIRIT & SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC	**for petroleum:** This product contains benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic. This product contains toluene. There are indications from animal studies that prolonged exposure to high concentrations of toluene may lead to hearing loss.
FERRIC OXIDE & C.I. PIGMENT YELLOW 42 & CALCIUM CARBONATE & METHYL SILICATE	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.

Acute Toxicity	⊘	**Carcinogenicity**	⊘
Skin Irritation/Corrosion	✓	**Reproductivity**	⊘
Serious Eye Damage/Irritation	⊘	**STOT - Single Exposure**	⊘
Respiratory or Skin sensitisation	⊘	**STOT - Repeated Exposure**	⊘
Mutagenicity	⊘	**Aspiration Hazard**	✓

Continued...

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
distillates, petroleum, light, hydrotreated	LC50	96	Fish	2.2mg/L	4
distillates, petroleum, light, hydrotreated	NOEC	3072	Fish	=1mg/L	1
xylene	EC50	48	Crustacea	>3.4mg/L	2
xylene	EC50	72	Algae or other aquatic plants	4.6mg/L	2
xylene	EC50	24	Crustacea	0.711mg/L	4
xylene	NOEC	73	Algae or other aquatic plants	0.44mg/L	2
ethylbenzene	EC50	48	Crustacea	1.184mg/L	4
ethylbenzene	EC50	96	Algae or other aquatic plants	3.6mg/L	2
ethylbenzene	EC50	96	Crustacea	=0.49mg/L	1
ethylbenzene	NOEC	168	Crustacea	0.96mg/L	5
solvent naphtha petroleum, medium aliphatic	EC50	48	Crustacea	>100mg/L	1
solvent naphtha petroleum, medium aliphatic	EC50	96	Algae or other aquatic plants	=450mg/L	1
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	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
C.I. Pigment Yellow 42	LC50	96	Fish	0.05mg/L	2
C.I. Pigment Yellow 42	EC50	72	Algae or other aquatic plants	18mg/L	2
C.I. Pigment Yellow 42	EC50	504	Crustacea	4.49mg/L	2
C.I. Pigment Yellow 42	NOEC	504	Fish	0.52mg/L	2
calcium carbonate	LC50	96	Fish	>56000mg/L	4
calcium carbonate	EC50	72	Algae or other aquatic plants	>14mg/L	2
calcium carbonate	NOEC	72	Algae or other aquatic plants	14mg/L	2
methyl silicate	LC50	96	Fish	>245mg/L	2
methyl silicate	EC50	48	Crustacea	>75mg/L	2
methyl silicate	EC50	96	Algae or other aquatic plants	<1.000mg/L	3
methyl silicate	EC50	72	Algae or other aquatic plants	>22mg/L	2
methyl silicate	NOEC	72	Algae or other aquatic plants	>=22mg/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*				

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water. The oil film on water surface may physically affect the aquatic organisms, due to the interruption of the
oxygen transfer between the air and the water
Oils of any kind can cause:

- drowning of water-fowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility
- lethal effects on fish by coating gill surfaces, preventing respiration
- asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom and
- adverse aesthetic effects of fouled shoreline and beaches

In case of accidental releases on the soil, a fine film is formed on the soil, which prevents the plant respiration process and the soil particle saturation. It may cause deep water infestation.
For Kerosene and Kerosene-Range Refinery Steams: log Pow 6.1; Henry's Law Constant: 8.24E + 100 atm m3/mole 25 C. Kerosene is the name for the lighter end of a group of petroleum streams known as the middle distillates. Kerosene may be obtained either from the distillation of crude oil under atmospheric pressure (straight-run kerosene) or from catalytic, thermal or steam cracking of heavier petroleum streams (cracked kerosene). The streams are complex mixtures of paraffinic, isoparaffinic, naphthenic (cycloparaffinic) and aromatic (mainly alkylbenzene) hydrocarbons ranging in carbon number from C5-25 (mainly C9-16) and boil in the range 145 to 300 C. Jet fuels are included because they are composed almost entirely of two of these streams straight run kerosene or hydrodesulfurised kerosene (CAS).
Atmospheric Fate: Kerosene may undergo oxidation by a gas-phase reaction with photochemically produced hydroxyl radicals. The expected atmospheric half-life for kerosene is 2 - 3.4 days.
Terrestrial Fate: Kerosene is expected to biodegrade under both aerobic and anaerobic conditions. Some components of kerosene may display low to zero mobility. Kerosene may rapidly volatilize from dry soil to the atmosphere although its tendency to adsorb to soil may significantly slow the rate of this process. Volatilization is greater from dune sand and loamy sand soils than from silty loam soil. In all soils, components with a high carbon number formed the main fraction of the kerosene residues after 50 days. Volatilization is the major fate process of kerosene in inert porous media. During volatilization of liquid kerosene, changes in composition occurred with kerosene gradually losing its light components and the viscosity of the remaining liquid increasing. The increase in viscosity led to a decrease in the infiltration rate by about 20%.
Aquatic Fate: If released to water, kerosene is expected to biodegrade under both aerobic and anaerobic conditions. Some components of kerosene may significantly bioconcentrate in fish and aquatic organisms. Kerosene may strongly adsorb to sediment and suspended organic matter. The estimated half-life for volatilization of kerosene from a model lake is >130 days.
Ecotoxicity: Kerosenes and jet fuels are moderately to acutely toxicity to aquatic organisms. Each of the different streams exhibited similar toxicity to rainbow trout and algae. Kerosene is acutely toxic to Daphnia magna water fleas.

Continued...

For Aromatic Substances Series:
Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.
Atmospheric Fate: PAHs are 'semi-volatile substances" which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization.
Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.
Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus. The order of most toxic to least in a study using grass shrimp and brown shrimp was dimethylnaphthalenes > methylnaphthalenes >naphthalenes. Anthrcene is a phototoxic PAH. UV light greatly increases the toxicity of anthracene to bluegill sunfish. Biological resources in strong sunlight are at more risk than those that are not. PAHs in general are more frequently associated with chronic risks.
For Organic Pigments:
Environmental Fate: Organic pigments are highly persistent in natural environments.
Atmospheric Fate: The chemical processes underlying breakdown of organic pigments through light or atmospheric conditions are difficult to clarify. Atmospheric contaminants, such as peroxides, which appear as the products of radiation, frequently start the degradation process.
Terrestrial Fate: Color pigments are protected from leaching into groundwater by the plastics, paints and inks that make up the final products incorporating color pigments. These substances will likely partition to soil and sediments. If these chemical are released equally into the three major environmental compartments, (air, water and soil), they will mainly partition into soil and sediments where they will persist. These substances have a high tendency to adsorb to soil, making them immobile. Evaporation from soil surfaces is not expected to occur. If released to soil, organic pigments are not expected to move out of the soil.
Aquatic Fate: With only a few recognized exceptions, organic and inorganic color pigments are extremely insoluble in water. Many pigments are visible in water at concentrations as low as 1 mg/L and pigmented waste waters are therefore usually highly colored and discharge in open waters presents an aesthetic problem. These substances are not expected to be readily or inherently biodegradable.
Ecotoxicity: Color pigments are not a threat to the environment when disposed of with solid waste in appropriate lined landfills. These compounds are non-toxic and are not expected to accumulate/concentrate in the food chain.

For Xylenes:
log Koc : 2.05-3.08; Koc : 25.4-204; Half-life (hr) air : 0.24-42; Half-life (hr) H2O surface water : 24-672; Half-life (hr) H2O ground : 336-8640; Half-life (hr) soil : 52-672; Henry's Pa m3 /mol : 637-879; Henry's atm m3 /mol - 7.68E-03; BOD 5 if unstated - 1.4,1%; COD - 2.56,13% ThOD - 3.125 : BCF : 23; log BCF : 1.17-2.41.
Environmental Fate: Most xylenes released to the environment will occur in the atmosphere and volatilisation is the dominant environmental fate process. Soil - Xylenes are expected to have moderate mobility in soil evaporating rapidly from soil surfaces. The extent of the degradation is expected to depend on its concentration, residence time in the soil, the nature of the soil, and whether resident microbial populations have been acclimated. Xylene can remain below the soil surface for several days and may travel through the soil profile and enter groundwater. Soil and water microbes may transform it into other, less harmful compounds, although this happens slowly. It is not clear how long xylene remains trapped deep underground in soil or groundwater, but it may be months or years.
Atmospheric Fate: Xylene evaporates quickly into the air from surface soil and water and can remain in the air for several days until it is broken down by sunlight into other less harmful chemicals. In the ambient atmosphere, xylenes are expected to exist solely in the vapour phase. Xylenes are degraded in the atmosphere with an estimated atmospheric lifetime of about 0.5 to 2 days. Xylene may contribute to photochemical smog formation. p-Xylene has a moderately high photochemical reactivity under smog conditions, higher than the other xylene isomers. The photooxidation of p-xylene results in the production of carbon monoxide, formaldehyde, glyoxal, methylglyoxal, 3-methylbenzylnitrate, m-tolualdehyde, 4-nitro-3-xylene, 5-nitro-3-xylene, 2,6-dimethyl-p-benzoquinone, 2,4-dimethylphenol, 6-nitro-2,4-dimethylphenol, 2,6-dimethylphenol, and 4-nitro-2,6-dimethylphenol.
Aquatic Fate: p-xylene may adsorb to suspended solids and sediment in water and is expected to volatilise from water surfaces. Estimated volatilisation half-lives for a model river and model lake are 3 hours and 4 days, respectively. Measurements taken from goldfish, eels and clams indicate that bioconcentration in aquatic organisms is low. Photo-oxidation in the presence of humic acids may play an important role in the abiotic degradation of p-xylene. p-Xylene is biodegradable and has been observed to degrade in pond water however; it is unclear if it degrades in surface waters. p-Xylene has been observed to degrade in anaerobic and aerobic groundwater; however, it is known to persist for many years in groundwater, at least at sites where the concentration might have been quite high. Ecotoxicity: Xylenes are slightly toxic to fathead minnow, rainbow trout and bluegill and not acutely toxic to water fleas. For Photobacterium phosphoreum EC50 (24 h): 0.0084 mg/L. and Gammarus lacustris LC50 (48 h): 0.6 mg/L.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)
ethylbenzene	HIGH (Half-life = 228 days)	LOW (Half-life = 3.57 days)
C.I. Pigment Red 3	HIGH	HIGH
methyl silicate	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
distillates, petroleum, light, hydrotreated	LOW (BCF = 159)
xylene	MEDIUM (BCF = 740)
ethylbenzene	LOW (BCF = 79.43)
C.I. Pigment Red 3	LOW (BCF = 2.9)
methyl silicate	LOW (LogKOW = -1.9282)

Mobility in soil

Ingredient	Mobility
ethylbenzene	LOW (KOC = 517.8)
C.I. Pigment Red 3	LOW (KOC = 69830)
methyl silicate	LOW (KOC = 757.6)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	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. A Hierarchy of Controls seems to be common - the user should investigate: ▸ Reduction ▸ Reuse ▸ Recycling ▸ Disposal (if all else fails) 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

Continued...

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.

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO

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

DISTILLATES, PETROLEUM, LIGHT, HYDROTREATED(64742-47-8) 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 - California Proposition 65 - Carcinogens
- US - Hawaii Air Contaminant Limits
- US - Idaho - Limits for Air Contaminants
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELs)
- US - Oregon Permissible Exposure Limits (Z-1)
- US - Pennsylvania - 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 National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
- US NIOSH Recommended Exposure Limits (RELs)
- US OSHA Permissible Exposure Levels (PELs) - Table Z1
- 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

XYLENE(1330-20-7) 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 OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)
- US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)
- 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 (PELs)
- 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 ACGIH Threshold Limit Values (TLV)
- US ACGIH Threshold Limit Values (TLV) - Carcinogens
- 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
- US EPA Carcinogens Listing
- US EPCRA Section 313 Chemical List
- US OSHA Permissible Exposure Levels (PELs) - Table Z1
- US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

ETHYLBENZENE(100-41-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Continued...

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
US - Alaska Limits for Air Contaminants
US - California - Proposition 65 - Priority List for the Development of MADLs for Chemicals Causing Reproductive Toxicity
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)
US - California Permissible Exposure Limits for Chemical Contaminants
US - California Proposition 65 - Carcinogens
US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens
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 (PELs)
US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens
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 ACGIH Threshold Limit Values (TLV) - Carcinogens
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
US CWA (Clean Water Act) - Priority Pollutants
US CWA (Clean Water Act) - Toxic Pollutants
US EPA Carcinogens Listing
US EPCRA Section 313 Chemical List
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

SILICA CRYSTALLINE - QUARTZ(14808-60-7) 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 OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)
US - California Permissible Exposure Limits for Chemical Contaminants
US - California Proposition 65 - Carcinogens
US - Hawaii Air Contaminant Limits
US - Idaho - Limits for Air Contaminants
US - Idaho - Toxic and Hazardous Substances - Mineral Dust
US - Massachusetts - Right To Know Listed Chemicals
US - Michigan Exposure Limits for Air Contaminants
US - Minnesota Permissible Exposure Limits (PELs)
US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Carcinogens
US - Oregon Permissible Exposure Limits (Z-1)
US - Oregon Permissible Exposure Limits (Z-3)
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 - Wyoming Toxic and Hazardous Substances Table Z-3 Mineral Dusts
US ACGIH Threshold Limit Values (TLV) - Carcinogens
US National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
US OSHA Permissible Exposure Levels (PELs) - Table Z3
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

NON-HAZARDOUS INGREDIENT(NOT AVAIL.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

WHITE SPIRIT(8052-41-3.) 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 - California Proposition 65 - Carcinogens
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 (PELs)
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 National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
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

SOLVENT NAPHTHA PETROLEUM, MEDIUM ALIPHATIC(64742-88-7) 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 - California Proposition 65 - Carcinogens
US - Hawaii Air Contaminant Limits
US - Idaho - Limits for Air Contaminants
US - Michigan Exposure Limits for Air Contaminants
US - Minnesota Permissible Exposure Limits (PELs)
US - Oregon Permissible Exposure Limits (Z-1)
US - Pennsylvania - 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 National Toxicology Program (NTP) 14th Report Part A Known to be Human Carcinogens
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
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

Continued...

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 (PELs)
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 (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

C.I. PIGMENT YELLOW 42(51274-00-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Alaska Limits for Air Contaminants
US - Pennsylvania - Hazardous Substance List
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

CALCIUM CARBONATE(471-34-1) 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 - Massachusetts - Right To Know Listed Chemicals
US - Michigan Exposure Limits for Air Contaminants
US - Minnesota Permissible Exposure Limits (PELs)
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 NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

METHYL SILICATE(681-84-5) 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 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 (PELs)
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 ACGIH Threshold Limit Values (TLV)
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Levels (PELs) - Table Z1
US OSHA Permissible Exposure Levels (PELs) - Table Z3
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	No
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
Xylene (mixed)	100	45.4
Ethylbenzene	1000	454

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

Soots, tars, and mineral oils (untreated and mildly treated oils and used engine oils), Ethylbenzene, Silica, crystalline (airborne particles of respirable size) Listed

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y

Continued...

Canada - NDSL	N (white spirit; xylene; ethylbenzene; methyl silicate; silica crystalline - quartz; solvent naphtha petroleum, medium aliphatic; distillates, petroleum, light, hydrotreated; ferric oxide; C.I. Pigment Red 3; C.I. Pigment Yellow 42)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (solvent naphtha petroleum, medium aliphatic)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	*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
silica crystalline - quartz	14808-60-7, 122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 70594-95-5, 87347-84-0, 308075-07-2
C.I. Pigment Red 3	2425-85-6, 12238-48-1, 12240-01-6, 39310-30-0, 78690-69-4
C.I. Pigment Yellow 42	51274-00-1, 12259-21-1, 105478-30-6, 53028-10-7, 1342-51-4, 12000-32-7, 50641-37-7, 51109-85-4, 99241-66-4, 131462-81-2, 147625-38-5, 12001-03-5, 185464-57-7, 182761-12-2, 94809-98-0, 934248-40-5
calcium carbonate	471-34-1, 13397-26-7, 15634-14-7, 1317-65-3, 72608-12-9, 878759-26-3, 63660-97-9, 459411-10-0, 198352-33-9, 146358-95-4

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