1. IDENTIFICATION OF THE SUBSTRATE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name/designation:	Caltech FCP Inhibitor.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:	Raw material for production of polyester roof waterproofing systems
Recommended restrictions:	SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen). SU3 Industrial uses: Uses of substances as such or in preparations* at industrial sites.

1.3 Supplier details

Alumasc Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, United Kingdom, WA9 4JG
Tel: +44 (0)1744 648400
e-mail: technical@alumascroofing.com

1.4 Emergency telephone number

Association / Organisation:National Poisons Information Service
Emergency telephone numbers:0344 892 0111 (Healthcare professionals only)
Other emergency telephone numbersAlumasc Building Products: +44 17 4464 8400
(Mon-Thurs – 08.30-17.00 Fri – 08.30-16.00)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 [1]:
H226 - Flammable Liquids Category 3, H361d - Reproductive Toxicity Category 2, H315 - Skin Corrosion/Irritation Category 2, H319 - Serious Eye Damage/Eye Irritation Category 2, H372 - Specific Target Organ Toxicity - Repeated Exposure Category 1.

2.2 Label elements

Hazard pictures:

Signal word:	Danger
Hazard statements:	H226: Flammable liquid and vapour. H361d: Suspected of damaging the unborn child. H315: Causes skin irritation. H319: Causes serious eye irritation. H372: Causes damage to organs through prolonged or repeated exposure (respiratory system, ears) (Inhalation).
Supplementary statement(s):	EUH208 Contains . May produce an allergic reaction.
Precautionary statements prevention:	P201: Obtain special instructions before use. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233: Keep container tightly closed. P260: Do not breathe mist/vapours/spray.

Precautionary statements response:	P308+P313 IF exposed or concerned: Get medical advice/ attention. P370+P378 In case of fire: Use alcohol resistant foam or normal protein foam to extinguish. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 Get medical advice/attention if you feel unwell.
Precautionary statement(s) storage:	P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.
Precautionary statements disposal:	P501: Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

2.3 Other hazards

Styrene: Listed in the Europe Regulation (EC) No 1907/2006 - Annex XVII (restrictions may apply).

3. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS

3.1 Substances

See 'Composition on ingredients' in Section 3.2.

3.2 Mixtures

Ingredient	Numbers	Classification (EC) 1272/2008	SCL / M-Factor	Nanoform Particle Characteristics	Concentration
Styrene	CAS No: 100-42-5 EC-No: 202-851-5 Index-No: 601-026-00-0 REACH No: 01-2119457861-32-xxxx	Flammable Liquids Category 3, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 1; H226, H332, H315, H319, H361d, H372 [2]	*	Not available	20-40 % by weight
Silica Amorphous	CAS No: 7631-86-9 EC-No: 231-545-4 Index-No: Not available REACH No: Not available	Not Classified [3]	Not available	Not available	0.5-3 % by weight
Alumina Hydrate	CAS No: 21645-51-2 EC-No: 244-492-7 Index-No: Not available REACH No: Not available	Not Classified [3]	Not available	Not available	30-50 % by weight

Legend: 1. Classified by Chemwatch; 2. Classification drawn from GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567; 3. Classification drawn from C&L; * EU IOELVs available; [e] Substance identified as having endocrine disrupting properties.

4. FIRST AID MEASURES

4.1 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:	Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11.

4.3 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.
Copper, magnesium, aluminium, antimony, iron, manganese, nickel, zinc (and their compounds) in welding, brazing, galvanising or smelting operations all give rise to thermally produced particulates of smaller dimension than may be produced if the metals are divided mechanically. Where insufficient ventilation or respiratory protection is available these particulates may produce "metal fume fever" in workers from an acute or long term exposure.
Onset occurs in 4-6 hours generally on the evening following exposure. Tolerance develops in workers but may be lost over the weekend. (Monday Morning Fever)
Pulmonary function tests may indicate reduced lung volumes, small airway obstruction and decreased carbon monoxide diffusing capacity but these abnormalities resolve after several months.
Although mildly elevated urinary levels of heavy metal may occur they do not correlate with clinical effects.
The general approach to treatment is recognition of the disease, supportive care and prevention of exposure.
Seriously symptomatic patients should receive chest x-rays, have arterial blood gases determined and be observed for the development of tracheobronchitis and pulmonary edema.

[Ellenhorn and Barceloux: Medical Toxicology].

For acute or short term repeated exposures to styrene:

Inhalation:	Severe exposures should have cardiac monitoring to detect arrhythmia. Catecholamines, especially epinephrine (adrenaline) should be used cautiously (if at all). Aminophylline and inhaled beta-two selective bronchodilators (e.g. salbutamol) are the drugs of choice for treatment of bronchospasm.
Ingestion:	Ipecac syrup should be given for ingestions exceeding 3ml (styrene)/kg. For patients at risk of aspiration because of obtundation, intubation should precede lavage. Pneumonitis is a significant risk. Watch the patient closely in an upright (alert patient) or left lateral head-down position (obtunded patient) to reduce aspiration potential. [Ellenhorn and Barceloux: Medical Toxicology].

BIOLOGICAL EXPOSURE INDEX – BEI.

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

Determinant	Index	Sampling Time	Comments
1. Mandelic acid in urine	800 mg/gm creatinine	End of shift	NS
	300 mg/gm creatinine	Prior to next shift	NS
2. Phenylglyoxylic acid in urine	240 mg/gm creatinine	End of shift	NS
	100 mg/gm creatinine	Prior to next shift	
3. Styrene in venous blood	0.55 mg/L	End of shift	SQ
	0.02 mg/L	Prior to next shift	SQ

NS: Non-specific determinant; also seen after exposure to other materials.

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

B: Background levels occur in specimens collected from subjects NOT exposed.

Treat symptomatically.
Manifestation of aluminium toxicity include hypercalcaemia, anaemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asterixis, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur.
Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminium loads are excessive.
Serum aluminium levels above 60 ug/ml indicate increased absorption. Potential toxicity occurs above 100 ug/ml and clinical symptoms are present when levels exceed 200 ug/ml.
Deferoxamine has been used to treat dialysis encephalopathy and osteomalacia. CaNa2EDTA is less effective in chelating aluminium.
[Ellenhorn and Barceloux: Medical Toxicology].

5. FIRE-FIGHTING MEASSURES

5.1 Extinguishing media

Suitable extinguishing media:

Foam, Dry chemical powder, BCF (where regulations permit),Carbon dioxide.

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for fire-fighters

Firefighting:
Alert Fire Brigade and tell them location and nature of hazard.
May be violently or explosively reactive.
Wear breathing apparatus plus protective gloves.
Prevent, by any means available, spillage from entering drains or water course.

Fire/explosion hazard:
Liquid and vapour are flammable.
Moderate fire hazard when exposed to heat or flame.
Vapour forms an explosive mixture with air.
Moderate explosion hazard when exposed to heat or flame.
Combustion products include:
Carbon monoxide (CO)
Carbon dioxide (CO_2)
Metal oxides
Other pyrolysis products typical of burning organic material.
Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.
When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles.
Aluminium hydroxide is a flame retardant. At around 200 C, aluminium hydroxide (aluminium trihydrate) is decomposed to aluminium oxide (which forms a protective, non-flammable layer on the material surface) and water. The water (as steam) forms a layer of non-flammable gas near the material s surface, inhibiting flames. The reaction is endothermic (absorbs heat energy), thus cooling the material and slowing burning.

6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

See Section 8.

6.2 Environmental Precautions

See Section 12.

6.3 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.

Major spills:
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
May be violently or explosively reactive.
Wear breathing apparatus plus protective gloves.

6.4 Reference to other sections

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

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Safe handling:
Containers, even those that have been emptied, may contain explosive vapours.
Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
Contains low boiling substance:
Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.
Check for bulging containers.
Vent periodically
Always release caps or seals slowly to ensure slow dissipation of vapours
Avoid all personal contact, including inhalation.
Wear protective clothing when risk of overexposure occurs.
Use in a well-ventilated area.
Prevent concentration in hollows and sumps.
DO NOT allow clothing wet with material to stay in contact with skin.

Fire and explosion protection:
See Section 5.

Other information:
Store in original containers in approved flammable liquid storage area.
Store away from incompatible materials in a cool, dry, well-ventilated area.
DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
No smoking, naked lights, heat or ignition sources.

7.2 Conditions for safe storage, including any incompatibilities

Suitable container:
Packing as supplied by manufacturer.
Plastic containers may only be used if approved for flammable liquid.
Check that containers are clearly labelled and free from leaks.
For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
For materials with a viscosity of at least 2680 cSt. (23 deg. C)
For manufactured product having a viscosity of at least 250 cSt.

Storage incompatibility:
For aluminas (aluminium oxide):
Incompatible with hot chlorinated rubber.
In the presence of chlorine trifluoride may react violently and ignite.
- May initiate explosive polymerisation of olefin oxides including ethylene oxide.
- Produces exothermic reaction above 200°C with halocarbons and an exothermic reaction at ambient temperatures with halocarbons in the presence of other metals.

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.
- 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.

Warning:
May decompose violently or explosively on contact with other substances.

- This substance, or one of its components, is one of the relatively few compounds which are described as "endothermic" i.e. heat is absorbed into the compound, rather than released from it, during its formation.
- The majority of endothermic compounds are thermodynamically unstable and may decompose explosively under various circumstances of initiation.
- Many but not all endothermic compounds have been involved in decompositions, reactions and explosions and, in general, compounds with significantly positive values of standard heats of formation, may be considered suspect on stability grounds.
- Contamination with polymerisation catalysts - peroxides, persulfates, oxidising agents - also strong acids, strong alkalies, will cause polymerisation with exotherm - generation of heat.
- Polymerisation of large quantities may be violent - even explosive.
- Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous

Silicas:

- React with hydrofluoric acid to produce silicon tetrafluoride gas.
- React with xenon hexafluoride to produce explosive xenon trioxide.
- Reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride (these halogenated materials are not.
- Commonplace industrial materials) and other fluorine-containing compounds.
- May react with fluorine, chlorates.
- Are incompatible with strong oxidisers, manganese trioxide, chlorine trioxide, strong alkalis, metal oxides, concentrated.
- Orthophosphoric acid, vinyl acetate.
- May react vigorously when heated with alkali carbonates.
- Avoid strong acids, bases.

Styrene:

- Requires inhibition with adequate levels of substituted phenol (such as tert-butylcatechol to prevent polymerisation – material that has had inhibitor removed, e.g.is uninhibited, must be refrigerated and used within 24 hours, i.e. Not stored; contact with alkali solutions or glycols will remove inhibitor and render material unstable on storage polymerisation may cause container to explode.
- Polymerisation may be caused by elevated temperatures (above 66 deg c.), butyl lithium, peroxides, uv light, or sunlight.
- Reacts violently with chlorosulfonic acid, strong oxidisers, sulfuric acid, xenon tetrafluoride.
- Is incompatible with acids, rust, catalysts for vinyl polymerisation, 2,5-dimethyl-2,5-di(tert-butylperox)hexane, peroxides,
- Metals salts (e.g., aluminium chloride, copper chlorate, manganese nitrate, etc).
- Corrodes copper and its alloys.
- Attacks some plastics, rubber or coatings.
- Flow or agitation may generate electrostatic charges due to low conductivity.
- Uninhibited monomer vapour may block vents and confined spaces by forming solid polymer.

7.3. Specific end use(s)

See Section 1.2 .

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredient	**DNELs** **Exposure Pattern Worker**	**PNECs** **Compartment**
Styrene:	Dermal 406 mg/kg bw/day (Systemic, Chronic) Inhalation 85 mg/m^3 (Systemic, Chronic) Inhalation 100 mg/m^3 (Local, Chronic) Inhalation 100 mg/m^3 (Systemic, Acute) Inhalation 100 mg/m^3 (Local, Acute) Dermal 343 mg/kg bw/day (Systemic, Chronic) * Inhalation 1 mg/m^3 (Systemic, Chronic) * Oral 2.1 mg/kg bw/day (Systemic, Chronic) * Inhalation 1 mg/m^3 (Local, Chronic) * Inhalation 10 mg/m^3 (Systemic, Acute) * Inhalation 10 mg/m^3 (Local, Acute) *	0.028 mg/L (Water (Fresh)) 0.014 mg/L (Water - Intermittent release) 0.04 mg/L (Water (Marine)) 0.418 mg/kg sediment dw (Sediment (Fresh Water)) 0.307 mg/kg sediment dw (Sediment (Marine)) 0.146 mg/kg soil dw (Soil) 5 mg/L (STP)
Silica Amorphous:	Inhalation 0.3 mg/m^3 (Local, Chronic)	Not available
Alumina Hydrate:	Dermal 4.063 mg/kg bw/day (Systemic, Chronic) Inhalation 10.76 mg/m^3 (Systemic, Chronic) Inhalation 10.76 mg/m^3 (Local, Chronic) Oral 4.74 mg/kg bw/day (Systemic, Chronic) *	Not available

* Values for General Population.

Occupational Exposure Limits (OEL):

Ingredient data:

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
UK Workplace Exposure Limits (WELs)	styrene	Styrene	100 ppm / 430 mg/m3	1080 mg/m3 / 250 ppm	Not available	Not available
UK Workplace Exposure Limits (WELs)	silica amorphous	Silica, fused respirable dust	0.08 mg/m3	Not available	Not available	Carc (cobalt dichloride and sulphate), Sen
UK Workplace Exposure Limits (WELs)	silica amorphous	Diatomaceous earth, natural, respirable dust	1.2 mg/m3	Not available	Not available	Not available

Emergency limits:

Ingredient	TEEL-1	TEEL-2	TEEL-3
Styrene	Not available	Not available	Not available
Silica Amorphous	18 mg/m3	200 mg/m3	1,200 mg/m3
Silica Amorphous	18 mg/m3	100 mg/m3	630 mg/m3
Silica Amorphous	120 mg/m3	1,300 mg/m3	7,900 mg/m3
Silica Amorphous	45 mg/m3	500 mg/m3	3,000 mg/m3
Silica Amorphous	18 mg/m3	740 mg/m3	4,500 mg/m3
Alumina Hydrate	8.7 mg/m3	73 mg/m3	440 mg/m3

Ingredient	Original IDLH	Revised IDLH
Styrene	700 ppm	Not available
Silica Amorphous	3,000 mg/m3	Not available
Alumina Hydrate	Not available	Not available

8.2 Exposure controls

8.2.1. 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.

8.2.2. 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.
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 cannot 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.
Body protection:	See Other Protection below.
Other protection:	Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.
Respiratory protection:	Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent) Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate. Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

8.2.3 Environmental exposure controls

See Section 12.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important health, safety and environmental information

Appearance:	Aluminium oxide or Aluminum oxide (in U.S. English) is a chemical compound of aluminium and oxygen with the chemical formula Al2O3. It is the most commonly occurring of several aluminium oxides, and specifically identified as aluminium(III) oxide. It is commonly called alumina, and may also be called aloxide, aloxite, or alundum depending on particular forms or applications. It occurs naturally in its crystalline polymorphic phase alpha-Al2O3 as the mineral corundum, varieties of which form the precious gemstones ruby and sapphire. Aluminium oxide also exists in other phases, including the cubic gamma and eta phases, the monoclinic theta phase, the hexagonal chi phase, the orthorhombic kappa phase and the delta phase that can be tetragonal or orthorhombic. Each has a unique crystal structure and properties. Coloured.

Physical state:	Liquid	**Relative density (Water = 1):**	1.33
Odour:	Not available	**Partition coefficient n-octanol / water:**	Not available
Odour threshold:	0.15ppm - 25 ppm Styrene	**Auto-ignition temperature (°C):**	490
pH (as supplied):	Not available	**Decomposition temperature (°C):**	Not available
Melting point/freezing point (°C):	Not available	**Viscosity (cSt):**	2800 mPas- 3600 mPas @ 23°C
Initial boiling point and boiling range (°C):	145°C	**Molecular weight (g/mol):**	Not available
Flash point (°C):	32°C (estimate)	**Taste:**	Not available
Evaporation rate [kg/(s m²)]:	12.4 BuAC = 1	**Explosive properties:**	Product is not explosive. However, formation of explosive air/vapour mixtures is possible
Flammability:	Flammable	**Oxidising properties:**	Not available
Upper Explosive Limit (%):	6.1 %	**Surface Tension (dyn/cm or mN/m):**	Not available
Lower Explosive Limit (%):	1.1 %	**Volatile Component (%vol):**	Not available
Vapour pressure (kPa)	0.67	**Gas group:**	Not available
Solubility in water:	Immiscible	**pH as a solution (1%):**	Not available
Vapour density (Air = 1):	3.6 (Air = 1)	**VOC g/L:**	Not available
Nanoform Solubility:	Not available	**Nanoform Particle Characteristics:**	Not available
Particle Size:	Not available		

9.2 Other information

Not available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

See Section 7.2.

10.2 Chemical stability

Unstable in the presence of incompatible materials.
Product is considered stable.
Hazardous polymerisation will not occur.

10.3 Possibility of hazardous reactions

See Section 7.2.

10.4 Conditions to avoid

See Section 7.2.

10.5 Incompatible materials

See Section 7.2.

10.6 Hazardous decomposition products

See section 5.3.

11. TOXICOLOGICAL INFORMATION

11.1 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. Central nervous system (CNS) depression is seen at styrene exposures exceeding 50 ppm, whilst headache, fatigue, nausea and dizziness are seen consistently at exposures of 100 ppm. Evidence exists that at 100 ppm, 5-10% reductions in sensory nerve conductions occur, and after exposure to 50 ppm, there is slowing of reaction times. Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. If exposure to highly concentrated vapour atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and unless resuscitated - death.
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. Styrene is absorbed into the body following oral or inhalation exposure. Its metabolites include styrene oxide, styrene glycol, mandelic acid, benzoic acid, hippuric acid, phenyl glyoxylic acid and possibly vinyl phenol. It is detectable in liver, kidney, pancreas, expired air, urine and faeces in the body. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
Skin Contact:	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. Styrene has been showed to be absorbed less through the skin than via the airways. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.
Eye:	The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area. There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.
Chronic:	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. Exposure to large doses of aluminium has been connected with the degenerative brain disease Alzheimer's Disease. Animal testing shows long term exposure to aluminium oxides may cause lung disease and cancer, depending on the size of the particle. The smaller the size, the greater the tendencies of causing harm.

	Amorphous silicas generally are less hazardous than crystalline silicas, but the former can be converted to the latter on heating and subsequent cooling. Inhalation of dusts containing crystalline silicas may lead to silicosis, a disabling lung disease that may take years to develop. Soluble silicates do not exhibit sensitizing potential. Testing in bacterial and animal experiments have not shown any evidence of them causing mutations or birth defects. Exposure to styrene may aggravate central nervous system disorders, chronic respiratory disease, skin disease, kidney disease and liver disease. Exposure to styrene at work causes effects on the nervous system. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

Caltech FCP:

Toxicity	**Irritation**
Not available	Not available

Styrene:

Toxicity	**Irritation**
Dermal (Rat) LD50: >2000 mg/kg[1]	Eye (Rabbit): 100 mg/24h - moderate
Inhalation(Mouse) LC50; 9.5 mg/L4h[2]	Eye (Rabbit): 100 mg/24h - moderate
Oral(Mouse) LD50; 316 mg/kg[2]	Skin (Rabbit): 500 mg - mild
	Skin (Rabbit): 500 mg - mild

Silica Amorphous:

Toxicity	**Irritation**
Dermal (Rat) LD50: >2000 mg/kg[1]	Eye (Rabbit): non-irritating *
Inhalation(Rat) LC50: >0.139 mg/L4h[2]	Eye: no adverse effect observed (not irritating)[1]
Oral (Rat) LD50; >1000 mg/kg[1]	Skin (Rabbit): non-irritating *
	Skin: no adverse effect observed (not irritating)[1]

Alumina Hydrate:

Toxicity	**Irritation**
Inhalation(Rat) LC50: >2.3 mg/L4h[2]	Eye: adverse effect observed (irritating)[1]
Oral (Rat) LD50; >2000 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]

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 chemial Substances.

Caltech FCP Inhibitor:	Data demonstrate that during inhalation exposure, aromatic hydrocarbons undergo substantial partitioning into adipose tissues. Following cessation of exposure, the level of aromatic hydrocarbons in body fats rapidly declines. Thus, the aromatic hydrocarbons are unlikely to bioaccumulate in the body. Selective partitioning of the aromatic hydrocarbons into the non-adipose tissues is unlikely. For aluminium compounds: Aluminium present in food and drinking water is poorly absorbed through the gastrointestinal tract. The bioavailability of aluminium is dependent on the form in which it is ingested and the presence of dietary constituents with which the metal cation can complex Ligands in food can have a marked effect on absorption of aluminium, as they can either enhance uptake by forming absorbable (usually water soluble) complexes (e.g., with carboxylic acids such as citric and lactic), or reduce it by forming insoluble compounds (e.g., with phosphate or dissolved silicate). Considering the available human and animal data it is likely that the oral absorption of aluminium can vary 10-fold based on chemical form alone. Although bioavailability appears to generally parallel water solubility, insufficient data are available to directly extrapolate from solubility in water to bioavailability. For oral intake from food, the European Food Safety Authority (EFSA) has derived a tolerable weekly intake (TWI) of 1 milligram (mg) of aluminium per kilogram of bodyweight. In its health assessment, the EFSA states a medium bioavailability of 0.1 % for all aluminium compounds which are ingested with food.
Styrene:	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. **WARNING:** This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

Silica Amorphous:	Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS] 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.
Alumina Hydrate:	No significant acute toxicological data identified in literature search.
Caltech FCP Inhibitor & Silica Amorphous:	For silica amorphous: Derived No Adverse Effects Level (NOAEL) in the range of 1000 mg/kg/d. In humans, synthetic amorphous silica (SAS) is essentially non-toxic by mouth, skin or eyes, and by inhalation. Epidemiology studies show little evidence of adverse health effects due to SAS. Repeated exposure (without personal protection) may cause mechanical irritation of the eye and drying/cracking of the skin. When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body.

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

Legend:
✗ - Data either not available or does not fill the criteria for classification.
✓ - Data available to make classification.

11.2 Additional information

11.2.1 Endocrine disruption properties

Not available.

11.2.2 Other Information

See Section 11.1.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Caltech FCP:

End point	Test duration (Hr)	Species	Value	Source
Not available	Not available	Not available	Not available	Not available

Styrene:

End point	Test duration (Hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	1.4mg/l	1
EC50	48h	Crustacea	4.7mg/l	1
NOEC(ECx)	96h	Algae or other aquatic plants	0.063mg/l	1
LC50	96h	Fish	4.02mg/l	2
EC50	96h	Algae or other aquatic plants	0.72mg/l	1

Silica Amorphous:

End point	Test duration (Hr)	Species	Value	Source
NOEC(ECx)	24h	Crustacea	>=10000mg/l	2
EC50	72h	Algae or other aquatic plants	14.1mg/l	2
EC50	48h	Crustacea	>86mg/l	2
LC50	96h	Fish	1033.016mg/l	2
EC50	96h	Algae or other aquatic plants	217.576mg/l	2

Alumina Hydrate:

End point	Test duration (Hr)	Species	Value	Source
EC50	48h	Crustacea	>=0.065mg/l	4
NOEC(ECx)	72h	Algae or other aquatic plants	>100mg/l	1
LC50	96h	Fish	0.57mg/l	2
EC50	96h	Algae or other aquatic plants	0.46mg/l	2

Legend:
Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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 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.

For Styrene:
Transport: Styrene is expected to volatilise from surface waters, and is also removed from waters by adsorption onto soils and sediments. Under certain conditions, styrene may leach through soil (particularly sandy soils) and enter ground water.
Transformation/Persistence: Air - In the atmosphere, styrene reacts with both hydroxyl radicals and ozone with estimated half-lives of 3.5 and 9 hours, respectively. The chemical is also degraded in the presence of NOX and natural sunlight.
Substances containing unsaturated carbons are ubiquitous in indoor environments. They result from many sources (see below). Most are reactive with environmental ozone and many produce stable products which are thought to adversely affect human health. The potential for surfaces in an enclosed space to facilitate reactions should be considered.
Source of unsaturated substances Unsaturated substances (Reactive Emissions) Major Stable Products produced following reaction with ozone.
Microbial methylation plays important roles in the biogeochemical cycling of the metalloids and possibly in their detoxification. Many microorganisms (bacteria, fungi, and yeasts) and animals are now known to biomethylate arsenic, forming both volatile (e.g., methylarsines) and nonvolatile (e.g., methylarsonic acid and dimethylarsinic acid) compounds. Antimony and bismuth, also undergo biomethylation to some extent. Trimethylstibine formation by microorganisms is now well established, but this process apparently does not occur in animals.

For Aluminium and its Compounds and Salts:
Environmental Fate - As an element, aluminium cannot be degraded in the environment, but may undergo various precipitation or ligand exchange reactions.
Aluminium in compounds has only one oxidation state (+3), and would not undergo oxidation-reduction reactions under environmental conditions. Aluminium can be complexed by various ligands present in the environment (e.g., fulvic and humic acids). The solubility of aluminium in the environment will depend on the ligands present and the pH.
For Amorphous Silica: Amorphous silica is chemically and biologically inert. It is not biodegradable.
Aquatic Fate: Due to its insolubility in water there is a separation at every filtration and sedimentation process. On a global scale, the level of man-made synthetic amorphous silicas (SAS) represents up to 2.4% of the dissolved silica naturally present in the aquatic environment and untreated SAS have a relatively low water solubility and an extremely low vapour pressure.

For Silica:
Environmental Fate: Most documentation on the fate of silica in the environment concerns dissolved silica, in the aquatic environment, regardless of origin, (man-made or natural), or structure, (crystalline or amorphous).
Terrestrial Fate: Silicon makes up 25.7% of the Earth's crust, by weight, and is the second most abundant element, being exceeded only by oxygen. Silicon is not found free in nature, but occurs chiefly as the oxide and as silicates. Once released into the environment, no distinction can be made between the initial forms of silica.
DO NOT discharge into sewer or waterways.

12.2 Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Styrene	HIGH (Half-life = 210 days)	LOW (Half-life = 0.3 days)
Silica Amorphous	LOW	LOW

12.3 Bioaccumulation potential

Ingredient	Bioaccumulation
Styrene	LOW (BCF = 77)
Silica Amorphous	LOW (LogKOW = 0.5294)

12.4 Mobility in soil

Ingredient	Mobility
Styrene	LOW (KOC = 517.8)
Silica Amorphous	LOW (KOC = 23.74)

12.5 Results of PBT and vPvB assessment

	P	B	T
Relevant available data	Not available	Not available	Not available
PBT	✗	✗	✗
vPvB	✗	✗	✗

PBT Criteria fulfilled?	No
vPvB	No

12.6 Endocrine disruption properties

Not available.

12.7. Other adverse effects

Not available.

13. DISPOSAL CONSIDERATIONS

13.1 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. **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. 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. 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). Decontaminate empty containers.
Waste code:	08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances.

Waste treatment options:	Not available.
Sewage disposal options:	Not available.

14. TRANSPORT INFORMATION

Labels required:

Marine Pollutant: No.

Hazchem: 3Y.

Land transport (ADR):

14.1 UN number	1263
14.2 UN proper shipping name	PAINT *(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)* or PAINT RELATED MATERIAL *(including paint thinning or reducing compound)*
14.3 Transport hazard class(es)	Class: 3 Subrisk: Not applicable
14.4 Packing group	III Note: Due to its relatively high viscosity this material can be considered non-hazardous in accordance to ADR 2.2.3.1.5 when packed in receptacles of less than 450 litres.
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	Hazard identification (Kemler): 30 Classification code: F1 Hazard label: 3 Special provisions: 163 367 650 Limited quantity: 5 L Tunnel restriction code: 3 (D/E) (E)

Air transport (ICAO-IATA/DGR):

14.1 UN number	1263
14.2 UN proper shipping name	Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)
14.3 Transport hazard class(es)	ICAO/IATA class: 3 ICAO/IATA subrisk: Not applicable ERG code: 3 L
14.4 Packing group	III
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	Special provisions: A3 A72 A192 Cargo only packing instruction: 366 Cargo only maximum qty/pack: 220 L Passenger and cargo packing instruction: 355 Passenger and cargo maximum qty/pack: 60 L Passenger and cargo limited qty packing instructions: Y344 Passenger and cargo limited maximum qty/pack: 10 L

Sea transport (IMDG-Code/GGVSee):

14.1 UN number	1263
14.2 UN proper shipping name	PAINT *(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)* or PAINT RELATED MATERIAL *(including paint thinning or reducing compound)*
14.3 Transport hazard class(es)	IMDG class: 3 IMDG subrisk: Not applicable
14.4 Packing group	III Note: Due to its relatively high viscosity, and in accordance with section 2.3.2.5 of the IMDG code, this material is not subject to the provisions for marking, labelling and testing of packages, when packed in receptacles of no greater than 30 litres.

14.5 Environmental hazard	Not applicable	
14.6 Special precautions for user	EMS number: Special provisions: Limited quantities:	F-E, S-E 163 223 367 955 5 L

Inland waterways transport (ADN):

14.1 UN number	1263	
14.2 UN proper shipping name	PAINT *(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)* or PAINT RELATED MATERIAL *(including paint thinning or reducing compound)*	
14.3 Transport hazard class(es)	3	Not applicable
14.4 Packing group	III	
14.5 Environmental hazard	Not applicable	
14.6 Special precautions for user	Classification code: Special provisions: Limited quantity: Equipment required: Fire cones numbers:	F1 163; 367; 650 5 L PP, EX, A 0

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

Not applicable.

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

Product Name	**Group**
Styrene	Not available
Silica Amorphous	Not available
Alumina Hydrate	Not available

14.9 Transport in bulk in accordance with the ICG Code

Product Name	**Ship Type**
Styrene	Not available
Silica Amorphous	Not available
Alumina Hydrate	Not available

15. REGULATORY INFORMATION

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

Styrene is found on the following regulatory lists:

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB mandatory classification and labelling list (GB MCL)

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

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

UK REACH grandfathered registrations notified substances list

UK Workplace Exposure Limits (WELs).

Silica Amorphous is found on the following regulatory lists:

Chemical Footprint Project - Chemicals of High Concern List

Great Britain GB Biocidal Active Substances

Great Britain GB mandatory classification and labelling (GB MCL) technical reports

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

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

UK REACH grandfathered registrations notified substances list

UK Workplace Exposure Limits (WELs).

Alumina Hydrate Is found on the following regulatory lists:

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

UK REACH grandfathered registrations notified substances list

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable:
Directives 98/24/EC, - 92/85/EEC, - 94/33/EC, - 2008/98/EC, - 2010/75/EU; Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 as updated through ATPs.

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

National inventory status:

National Inventory	**Status**
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (Styrene; Alumina Hydrate))
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory. No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

16. OTHER INFORMATION

Full text risk and hazard codes:
H332: Harmful if inhaled.

SDS version summary:

Version	Date of Update	Section Updated
1.1	14/06/2023	Template change

Other information:
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.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards:
EN 166 Personal eye-protection
EN 340 Protective clothing
EN 374 Protective gloves against chemicals and micro-organisms
EN 13832 Footwear protecting against chemicals
EN 133 Respiratory protective devices

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
ES: Exposure Standard

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
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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