29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Hetron™ 92 FR RESIN
™ Trademark, INEOS or its subsidiaries, registered in various countries

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

Recommended use : RESIN

Details of the supplier of the safety data sheet INEOS Composites US LLC 5220 Blazer Parkway Dublin, OH 43017 United States of America (USA) +1-614-790-9299 (in US) sds.composites@ineos.com	**Emergency telephone number** 1-800-424-9300 (+1-703-527-3887 for direct dial) **Regulatory Information Number** +1-614-790-9299 (in US), or contact your local customer service representative **Product Information** +1-614-790-9299 (in US)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 3
Combustible Dust	:	
Skin irritation	:	Category 2
Eye irritation	:	Category 2A
Germ cell mutagenicity	:	Category 1B
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)
Specific target organ toxicity	:	Category 1 (Auditory system)

- repeated exposure (Inhalation)

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : Flammable liquid and vapor.
May form combustible dust concentrations in air.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause genetic defects.
Suspected of damaging fertility or the unborn child.
Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.

Precautionary Statements : **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Keep dust/air mixtures away from ignition sources.
Hazardous polymerization can occur under certain conditions. Avoid excessive heat, direct sunlight, peroxides, and other polymerization catalysts. Store in a cool place and maintain proper concentrations of inhibitor and oxygen.

Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/ attention.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Static Accumulating liquid
Hazardous polymerization may occur.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
Styrene	100-42-5	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Irrit. 2; H315	32.2659

		Eye Irrit. 2A; H319 STOT SE 3; H335 STOT RE 1; H372 Asp. Tox. 1; H304	
TRIETHYL PHOSPHATE	78-40-0	Acute Tox. 4; H302 Eye Irrit. 2A; H319	2.10
DIMETHYL METHANEPHOSPHONATE	756-79-6	Acute Tox. 4; H332 Eye Irrit. 2A; H319 Muta. 1B; H340 Repr. 2; H361	0.90

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Call a POISON CENTRE or doctor/physician if exposed or you feel unwell.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : Move to fresh air.
IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.

Remove contact lenses.
Protect unharmed eye.

If swallowed : Obtain medical attention.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
confusion
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause genetic defects.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure if inhaled.

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Organic dusts at sufficient concentration can form explosive mixtures in air.
Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Hydrocarbons
Specific extinguishing methods	:	Product is compatible with standard fire-fighting agents.
Further information	:	Do not use a solid water stream as it may scatter and spread fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use a water spray to cool fully closed containers. Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Remove all sources of ignition. Use personal protective equipment. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

Other information : Comply with all applicable federal, state, and local regulations.
Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
No sparking tools should be used.
Keep away from open flames, hot surfaces and sources of ignition.
Use only explosion-proof equipment.

Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Advice on safe handling : Open drum carefully as content may be under pressure.
Avoid formation of aerosol.
Provide sufficient air exchange and/or exhaust in work rooms.
Do not breathe vapours/dust.
Do not smoke.
Container hazardous when empty.
Take precautionary measures against static discharges.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
Secondary operations, such as grinding and sanding, may produce dust.
Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.

For further guidance on prevention of dust explosions, refer to National Fire Protection Association (NFPA) 654: “Standard

for the Prevention of Fire and Dust Explosions, from the Manufacturing, Processing and Handling of Combustible Particulate Solids".

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
No smoking.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Styrene	100-42-5	TWA	50 ppm 215 mg/m3	NIOSH REL
		ST	100 ppm 425 mg/m3	NIOSH REL
		TWA	100 ppm	OSHA Z-2
		CEIL	200 ppm	OSHA Z-2
		Peak	600 ppm	OSHA Z-2
		TWA	50 ppm 215 mg/m3	OSHA P0
		STEL	100 ppm 425 mg/m3	OSHA P0
		C	500 ppm	CAL PEL
		PEL	50 ppm 215 mg/m3	CAL PEL
		STEL	100 ppm 425 mg/m3	CAL PEL
		TWA	20 ppm	ACGIH
		STEL	40 ppm	ACGIH
TRIETHYL PHOSPHATE	78-40-0	TWA	7.45 mg/m3	US WEEL

Hazardous components without workplace control parameters

Components	CAS-No.
DIMETHYL METHANEPHOSPHONATE	756-79-6

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Styrene	100-42-5	Mandelic acid plus phenylglyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	400 mg/g Creatinine	ZUS_ACGIHB
Remarks:	Nonspecific					
		Styrene	Urine	End of shift (As soon as possible after exposure ceases)	40 µg/l	ZUS_ACGIHB

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.
Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Filter type : Organic vapour type

Hand protection

Material : Laminate (Barrier© or Silvershield©)

Break through time : 480 min

Glove thickness : > 0.5 mm

Remarks : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection : Wear as appropriate:

Impervious clothing
Safety shoes
Flame-resistant clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Discard gloves that show tears, pinholes, or signs of wear.
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Odour	:	aromatic
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	293 °F / 145 °C Value for Component
Flash point	:	29.4 °C Method: Seta closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	May form combustible dust concentrations in air (during processing).
Flammability (liquids)	:	
Flammability (liquids)	:	Static Accumulating liquid
Upper explosion limit	:	Upper flammability limit 6.1 %(V) Value for Component
Lower explosion limit	:	Lower flammability limit 1.1 %(V) Value for Component

Vapour pressure	:	6.67 hPa (20 °C) Value for Component
Relative vapour density	:	> 1(Air = 1.0)
Relative density	:	No data available
Density	:	1.28 g/cm3 (25 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Thermal decomposition	:	No data available
Viscosity		
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	> 20.5 mm2/s (40 °C)
Oxidizing properties	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation may occur. Vapours may form explosive mixture with air. This product does not present a dust explosion hazard as delivered. However, fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard.
Conditions to avoid	:	excessive heat Exposure to air. Exposure to sunlight. Heat, flames and sparks.

Incompatible materials	:	Acids aluminum aluminum chloride Bases Copper Copper alloys halogens iron chloride metal salts Strong oxidizing agents Peroxides
Hazardous decomposition products		Hydrocarbons Acetone Carbon dioxide (CO2) Carbon monoxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation Skin contact Eye Contact Ingestion

Acute toxicity
Not classified based on available information.
Components:
Styrene**:**

Acute oral toxicity	:	LD50 Oral (Rat): > 2,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 11.8 mg/l, 2770 ppm Exposure time: 4 h Test atmosphere: vapour No observed adverse effect level (Humans): 100 ppm Exposure time: 7 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: No adverse effect has been observed in acute dermal toxicity tests.

TRIETHYL PHOSPHATE**:**

Acute oral toxicity	:	LD50 (Rat): 1,311 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 8.817 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rabbit): > 20 g/kg

DIMETHYL METHANEPHOSPHONATE**:**

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 2.589 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity	:	LD50 (Rabbit): > 4,640 mg/kg Method: OECD Test Guideline 402 Assessment: No adverse effect has been observed in acute dermal toxicity tests.

Skin corrosion/irritation
Causes skin irritation.
Product:
Result: Repeated exposure may cause skin dryness or cracking.

Remarks: May cause skin irritation and/or dermatitis.

Components:
Styrene**:**
Species: Rabbit
Result: Irritating to skin.

Species: human skin
Result: No skin irritation

TRIETHYL PHOSPHATE**:**
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

DIMETHYL METHANEPHOSPHONATE**:**

Result: Slight, transient irritation

Serious eye damage/eye irritation
Causes serious eye irritation.
Product:
Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:
Styrene**:**
Result: Irritating to eyes.
Remarks: Vapour during processing may be irritating to the respiratory tract and to the eyes.

TRIETHYL PHOSPHATE**:**
Species: Rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405

DIMETHYL METHANEPHOSPHONATE**:**
Result: Irritating to eyes.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.
Components:
Styrene**:**
Exposure routes: Skin contact
Species: Guinea pig
Assessment: Does not cause skin sensitisation.
Result: negative

Exposure routes: inhalation (vapour)
Species: Humans
Assessment: Does not cause respiratory sensitisation.
Result: negative

DIMETHYL METHANEPHOSPHONATE**:**
Test Type: Maximisation Test
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity
May cause genetic defects.
Components:
DIMETHYL METHANEPHOSPHONATE**:**
Genotoxicity in vitro : Test Type: in vitro assay

Result: Positive results were obtained in some in vitro tests.

Genotoxicity in vivo : Test Type: dominant lethal test
Test species: Mouse
Result: positive

Germ cell mutagenicity-Assessment : In vivo tests showed mutagenic effects

Carcinogenicity
Not classified based on available information.
Product:
Carcinogenicity - Assessment : Styrene has been tested for carcinogenicity in rats and mice. Styrene caused lung tumors in mice only. These tumors are not considered to be relevant to humans.

Reproductive toxicity
Suspected of damaging fertility or the unborn child.
Components:
DIMETHYL METHANEPHOSPHONATE**:**
Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT - single exposure
May cause respiratory irritation.
Components:
Styrene**:**
Assessment: May cause respiratory irritation.

STOT - repeated exposure
Causes damage to organs (Auditory system) through prolonged or repeated exposure if inhaled.
Components:
Styrene**:**
Exposure routes: inhalation (vapour)
Target Organs: Auditory system
Assessment: Causes damage to organs through prolonged or repeated exposure.

Repeated dose toxicity
Components:
Styrene**:**
Species: Human
85 mg/m3
Application Route: inhalation (vapour)

Species: Human
615 mg/kg
Application Route: Skin contact

Aspiration toxicity
Not classified based on available information.
Components:
Styrene**:**
May be fatal if swallowed and enters airways.

Further information
Product:
Remarks: Solvents may degrease the skin.

Carcinogenicity:

IARC	Group 2A: Probably carcinogenic to humans	
	Styrene	100-42-5
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.	
NTP	Reasonably anticipated to be a human carcinogen	
	Styrene	100-42-5

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Product:
Ecotoxicology Assessment

Short-term (acute) aquatic hazard	:	Acute aquatic toxicity Category 2; Toxic to aquatic life.
Long-term (chronic) aquatic hazard	:	Not classified based on available information.

Components:
Styrene**:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 4.02 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 4.7 mg/l Exposure time: 48 h
Toxicity to algae	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 4.9 mg/l Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 1.01 mg/l Exposure time: 21 d
Toxicity to bacteria	:	EC50 (activated sludge): ca. 500 mg/l Exposure time: 0.5 h
Toxicity to soil dwelling organisms	:	NOEC (Eisenia fetida (earthworms)): 34 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207

TRIETHYL PHOSPHATE**:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l Exposure time: 96 h Method: static test Remarks: mortality
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 96 h Method: Static Remarks: mortality

Persistence and degradability
Components:
Styrene**:**

Biodegradability	:	Result: Readily biodegradable. Biodegradation: > 60 % Exposure time: 10 d

No data available
Bioaccumulative potential
Components:
Styrene**:**

Bioaccumulation	:	Bioconcentration factor (BCF): < 100
Partition coefficient: n-octanol/water	:	log Pow: 2.96 (25 °C)

TRIETHYL PHOSPHATE**:**

Partition coefficient: n-octanol/water	:	log Pow: 0.80

No data available
Mobility in soil
Components:
Styrene**:**

Distribution among environmental compartments : Koc: 352

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life.

Components:

Styrene**:**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

MX_DG

UN	1866	RESIN SOLUTION	3	III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1866	Resin solution	3	III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1866	Resin solution	3	III

INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1866	RESIN SOLUTION	3	III

TDG_INWT_C

UN	1866	RESIN SOLUTION	3	III

TDG_RAIL_C

UN	1866	RESIN SOLUTION	3	III

TDG_ROAD_C

UN	1866	RESIN SOLUTION	3	III

U.S. DOT - INLAND WATERWAYS

UN	1866	Resin solution	3	III

CFR_RAIL_C

UN	1866	Resin solution	3	III

U.S. DOT - ROAD

UN	1866	Resin solution	3	III

***ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Marine pollutant		no

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

TSCA list
No substances are subject to TSCA 12(b) export notification requirements.

No substances are subject to a Significant New Use Rule.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Styrene	100-42-5	1000	3099

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Combustible Dust
Hazard not otherwise classified (physical hazards)
Skin corrosion or irritation
Serious eye damage or eye irritation
Germ cell mutagenicity
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 The following components are subject to reporting levels established by SARA Title III, Section 313:
Styrene 100-42-5 32.26 %

California Prop. 65

WARNING: This product can expose you to chemicals including styrene, ethylbenzene, benzene, formaldehyde, 1,4-dioxane, acetaldehyde, ethylene oxide, which is/are known to the State of

California to cause cancer, and benzene, toluene, ethylene oxide, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

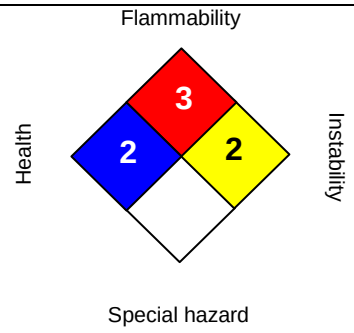
DSL	:	This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.
AICS	:	Not in compliance with the inventory
ENCS	:	Not in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	Not in compliance with the inventory
TSCA	:	On or in compliance with the active portion of the TSCA inventory

Inventories
AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 12/16/2020

NFPA:	**HMIS III:**



HEALTH	**2***
FLAMMABILITY	**3**
PHYSICAL HAZARD	**2**

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

NFPA Flammable and Combustible Liquids Classification
Flammable Liquid Class IC

Full text of H-Statements

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.

Sources of key data used to compile the Safety Data Sheet
INEOS internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by INEOS's Environmental Health and Safety Department +1-614-790-9299 (in US).

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative