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29 CFR 1910.1200 (OSHA HazCom 2012)

#### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier** 

Trade name : Enguard™ WG-FR-9168 F168 WHITE

**GELCOAT** 

™ Trademark, INEOS or its subsidiaries, registered in

various countries

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

Recommended use : Industrial chemical

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

## **SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification** 

Flammable liquids : Category 3

Combustible Dust :

Skin irritation : Category 2

Eye irritation : Category 2A

Carcinogenicity : Category 2

Specific target organ toxicity

- single exposure

: Category 3 (Respiratory system)

Specific target organ toxicity

- repeated exposure

(Inhalation)

: Category 1 (Auditory system)

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#### **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. Suspected of causing cancer.

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.

Vaar awa

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 mist or vapors. 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

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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**

Chemical nature : Static Accumulator

**Hazardous components** 

Chemical name	CAS-No.	Classification	Concentration (%)
Styrene	100-42-5	Flam. Liq. 3; H226	29.8212
		Acute Tox. 4; H332	
		Skin Irrit. 2; H315	
		Eye Irrit. 2A; H319	
		STOT SE 3; H335	

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1			
		STOT RE 1; H372	
		Asp. Tox. 1; H304	
ALUMINUM HYDROXIDE	21645-51-2	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	10.2364
TITANIUM DIOXIDE (TIO2)	13463-67-7	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	9.1522
TALC	14807-96-6	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	8.6949
SILICA AMORPHOUS (SIO2)	7631-86-9	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	2.9615
ANTIMONY TRIOXIDE	1309-64-4	Eye Irrit. 2A; H319 Carc. 2; H351	1.2493

## **SECTION 4. FIRST AID MEASURES**

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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:

antimony measles (a red, pimply rash)

stomach or intestinal upset (nausea, vomiting, diarrhea)

irritation (nose, throat, airways)

Lung irritation confusion

Causes skin irritation.

Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.

Causes damage to organs through prolonged or repeated

exposure if inhaled.

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

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#### **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 Metal oxides

Hydrogen chloride gas

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.

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for firefighters

Special protective equipment : 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

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

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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	Control	Basis
		(Form of	parameters /	
		exposure)	Permissible	
			concentration	

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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
		С	500 ppm	CAL PEL
		PEL	50 ppm 215 mg/m3	CAL PEL
		STEL	100 ppm 425 mg/m3	CAL PEL
		TWA	10 ppm	ACGIH
		STEL	20 ppm	ACGIH
ALUMINUM HYDROXIDE	21645-51-2	TWA	1 mg/m3 Respirable particulate matter (Aluminium)	ACGIH
TITANIUM DIOXIDE (TIO2)	13463-67-7	TWA	15 mg/m3 total dust	OSHA Z-1
		TWA	10 mg/m3 Total dust	OSHA P0
		PEL	10 mg/m3 Total dust (Titanium)	CAL PEL
		PEL	5 mg/m3 respirable dust fraction (Titanium)	CAL PEL
		TWA	2.5 mg/m3 Respirable particulate matter (Titanium dioxide)	ACGIH
		TWA	0.2 mg/m3 Respirable particulate matter (Titanium dioxide)	ACGIH
TALC	14807-96-6	TWA	20 Million particles per cubic foot Dust	OSHA Z-3
		TWA	2 mg/m3	OSHA P0

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			respirable dust	
			fraction	
		TWA	2 mg/m3 Respirable	NIOSH REL
		PEL	2 mg/m3 Respirable dust	CAL PEL
		TWA	0.1 fibres per cubic centimeter	ACGIH
		TWA	2 mg/m3 Respirable particulate matter	ACGIH
SILICA AMORPHOUS (SIO2)	7631-86-9	TWA	20 Million particles per cubic foot Dust (Silica)	OSHA Z-3
		TWA	80 mg/m3 / %SiO2 Dust (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL
		PEL	6 mg/m3	CAL PEL
ANTIMONY TRIOXIDE	1309-64-4	TWA	0.5 mg/m3 (antimony)	OSHA Z-1
		TWA	0.5 mg/m3 (antimony)	OSHA P0
		TWA	0.5 mg/m3 (antimony)	NIOSH REL
		PEL	0.5 mg/m3 (antimony)	CAL PEL
		TWA	0.02 mg/m3 Inhalable particulate matter (antimony)	ACGIH
ETHYL BENZENE	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0

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PEL	5 ppm 22 mg/m3	CAL PEL
STEL	30 ppm 130 mg/m3	CAL PEL

**Biological occupational exposure limits** 

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentrati on	Basis
Styrene	100-42-5	Mandelic acid plus phenylglyox ylic acid	Urine	End of shift (As soon as possible after exposure ceases)	400 mg/g Creatinine	ZUS_A CGIHB
Remarks:	Nonspecific, See notice of Intended Changes (NIC), Adopted values or notations enclosed are those for which changes are proposed in the NIC					
		Styrene	Urine	End of shift (As soon as possible after exposure ceases)	40 μg/l	ZUS_A CGIHB
Remarks:	See notice of Intended Changes (NIC), Adopted values or notations enclosed are those for which changes are proposed in the NIC					

**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

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should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

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

Colour : white

Odour : aromatic

Odour Threshold : No data available

pH : Not applicable

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).

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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 : No data available

Relative density : not determined

Density : 1.078 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 : Hazardous polymerisation may occur.

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reactions 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 : Exposure to air.

Exposure to sunlight.

Heat, flames and sparks.

Incompatible materials : Acids

aluminum

aluminum chloride

Bases

chlorinated rubber

Copper Copper alloys fluorides halogens iron chloride metal salts perchloric acid

Strong oxidizing agents

Peroxides

Hazardous decomposition

products

aluminum oxides

carbon dioxide and carbon monoxide

Hydrocarbons toxic fumes Hydrocarbons Acetone

Carbon dioxide (CO2) Carbon monoxide aluminum oxides hydrogen chloride

## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on likely routes of : Inhalation

exposure

: Inhalation Skin contact

Eye Contact Ingestion

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**Acute toxicity** 

Not classified based on available information.

Components:

Styrene:

Acute oral toxicity : LD50 (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.

**ALUMINUM HYDROXIDE:** 

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

LD50 (Rat, female): > 2,000 mg/kg Method: OECD Test Guideline 423

GLP: yes

Assessment: No adverse effect has been observed in acute

oral toxicity tests.

Acute inhalation toxicity : LC50 (Rat): > 2.3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: Not classified as acutely toxic by inhalation

under GHS.

Remarks: Information given is based on data obtained from

similar substances.

TITANIUM DIOXIDE (TIO2):

Acute oral toxicity : LD50 (Rat): > 24,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 6.82 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: Not classified as acutely toxic by inhalation

under GHS.

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Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg

TALC:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 423

SILICA AMORPHOUS (SIO2):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 2.08 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: No adverse effect has been observed in acute

inhalation toxicity tests.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

ANTIMONY TRIOXIDE:

Acute oral toxicity : LD50 (Rat): > 34,600 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Method: OECD Test Guideline 402

Assessment: Not classified as acutely toxic by dermal

absorption under GHS.

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

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Result: No skin irritation

ALUMINUM HYDROXIDE:

Species: Rabbit

Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

TITANIUM DIOXIDE (TIO2): Result: Slight, transient irritation

TALC:

Species: reconstructed human epidermis (RhE)

Result: No skin irritation

SILICA AMORPHOUS (SIO2): Result: Slight, transient irritation

ANTIMONY TRIOXIDE: Result: No skin 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.

#### **ALUMINUM HYDROXIDE:**

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: yes

TITANIUM DIOXIDE (TIO2): Result: Slight, transient irritation

TALC:

Species: Rabbit

Result: Slight, transient irritation Method: OECD Test Guideline 405

SILICA AMORPHOUS (SIO2):

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Result: Slight, transient irritation

**ANTIMONY TRIOXIDE:** 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

## **ALUMINUM HYDROXIDE:** Test Type: Maximisation Test

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

GLP: yes

TALC:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 406

## **ANTIMONY TRIOXIDE:**

Test Type: Maximisation Test

Species: Guinea pig Method: Directive 67/548/EEC, Annex V, B.6. Result: Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

## Components:

TALC:

Genotoxicity in vitro : Test Type: In vitro gene mutation study in bacteria

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Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: In vitro gene mutation study in bacteria

Test species: Saccharomyces cerevisiae

Metabolic activation: with and without metabolic activation

Result: negative

Genotoxicity in vivo : Test Type: dominant lethal test

Test species: Rat (male) Cell type: Bone marrow

Result: negative

ANTIMONY TRIOXIDE:

Genotoxicity in vitro : Remarks: In vitro tests have shown mutagenic effects.

Genotoxicity in vivo : Test Type: Micronucleus test

Test species: Mouse

Cell type: peripheral blood cells Method: OECD Test Guideline 474

Result: negative

Carcinogenicity

Suspected of causing cancer.

Product:

Carcinogenicity - : Styrene has been tested for carcinogenicity in rats and mice.
Assessment : Styrene caused lung tumors in mice only. These tumors are

not considered to be relevant to humans.

**Components:** 

ANTIMONY TRIOXIDE:

Carcinogenicity - : Limited evidence of carcinogenicity in animal studies

Assessment

Reproductive toxicity

Not classified based on available information.

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:

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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

Group 2B: Possibly carcinogenic to humans

TITANIUM DIOXIDE (TIO2) 13463-67-7

ANTIMONY TRIOXIDE 1309-64-4

ETHYL BENZENE 100-41-4

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

ANTIMONY TRIOXIDE 1309-64-4

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#### **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

: Chronic aquatic toxicity Category 3; Harmful to aquatic life

with long lasting effects.

**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

TITANIUM DIOXIDE (TIO2):

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h Test Type: static test

SILICA AMORPHOUS (SIO2):

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10,000 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

GLP: yes

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**ANTIMONY TRIOXIDE:** 

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 833 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: LC50 (Daphnia magna (Water flea)): > 530 mg/l

Exposure time: 48 h

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 206

mg/l

End point: Growth inhibition Exposure time: 72 h

Remarks: Information given is based on data obtained from

similar substances.

Toxicity to fish (Chronic

toxicity)

: NOEC (Pimephales promelas (fathead minnow)): 1.135 mg/l

Exposure time: 28 d End point: Growth rate

Remarks: Information given is based on data obtained from

similar substances.

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEC (Daphnia magna (Water flea)): 4.16 mg/l

Exposure time: 28 d

End point: Reproduction Test

Test Type: static test

Remarks: Information given is based on data obtained from

similar substances.

# Persistence and degradability Components:

Cturopor

Styrene:

Biodegradability : Result: Readily biodegradable.

Biodegradation: > 60 % Exposure time: 10 d

TALC:

Biodegradability : Result: The methods for determining biodegradability are not

applicable to inorganic substances.

**ANTIMONY TRIOXIDE:** 

Biodegradability : Result: The methods for determining biodegradability are not

applicable to inorganic substances.

No data available

**Bioaccumulative potential** 

**Components:** 

Styrene:

Bioaccumulation : Bioconcentration factor (BCF): < 100

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Partition coefficient: n-

octanol/water

: log Pow: 2.96 (25 °C)

ANTIMONY TRIOXIDE:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

No data available Mobility in soil Components:

Styrene:

Distribution among : Koc: 352

environmental compartments

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.,

Harmful to aquatic life with long lasting effects.

**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).

TITANIUM DIOXIDE (TIO2):

Results of PBT and vPvB

assessment

: Remarks: Not applicable

TALC:

Results of PBT and vPvB

assessment

: Remarks: Not applicable

SILICA AMORPHOUS (SIO2):

Results of PBT and vPvB

assessment

: Remarks: Not applicable

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

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

federal regulations.

Do not discharge effluent containing this product into lakes,

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streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

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.
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### U.S. DOT - ROAD

U.U. L		<u> </u>			
UN	1866	Resin solution	3	III	

## CFR RAIL C

UN	1866	Resin solution	3	III	
					•

#### **U.S. DOT - INLAND WATERWAYS**

UN	1866	Resin solution	3	III	

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™ Trad	lemark, II us countr	FR-9168 F168 WHITE GELCOAT NEOS or its subsidiaries, registere ies	d	Version: 2.0
TDG_RC	DAD_C 1866	RESIN SOLUTION	3	III
TDG_RA	AIL_C 1866	RESIN SOLUTION	3	III
TDG_IN				
UN	1866	RESIN SOLUTION	3	III
INTERN	ATIONAI	_ MARITIME DANGEROUS GOO	DS	
UN	1866	RESIN SOLUTION	3	III
INTERN	ATIONAI	_ AIR TRANSPORT ASSOCIATIO	ON - CARGO	
UN	1866	Resin solution	3	III
INTERN	ATIONAI	_ AIR TRANSPORT ASSOCIATIO	ON - PASSENGEI	R
UN	1866	Resin solution	3	III
MX DG				

## \*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**

The following substance(s) is/are subject to a Significant New Use Rule:
Alkanes, C20-28, chloro 2097144-43-7

Alkanes, C18-20, chloro

106232-85-3

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The following substance(s) is/are subject to TSCA 12(b) export notification requirements: Alkanes, C20-28, chloro 2097144-43-7

## **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	3353

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ Calculated product	
		(lbs)	(lbs)
Arsenic oxide	1327-53-3	1	90909

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

Carcinogenicity

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 29.82 %

ANTIMONY TRIOXIDE 1309-64-4 1.24 %

ETHYL BENZENE 100-41-4 0.15 %

#### California Prop. 65

WARNING: This product can expose you to chemicals including styrene, Titanium dioxide, antimony trioxide, ethylbenzene, Quartz, cumene, lead compounds, diarsenic trioxide, Carbon black, benzene, formaldehyde, 1,4-dioxane, acetaldehyde, ethylene oxide, methyl isobutyl ketone, propylene oxide, naphthalene, α-methylstyrene, which is/are known to the State of California to cause cancer, and toluene, diarsenic trioxide, benzene, ethylene oxide, methyl isobutyl ketone,

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methanol, chloromethane, 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 thi	s product are reported	d in the fo	llowing inventories	S
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TCSI : Not in compliance with the inventory

TSCA : On or in compliance with the active portion of the TSCA

inventory

AIIC : Not in compliance with the inventory

DSL : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

### **Inventories**

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

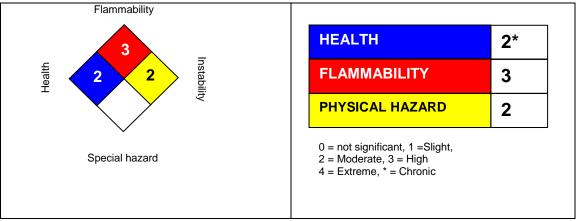
## **SECTION 16. OTHER INFORMATION**

## **Further information**

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NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IC

#### **Full text of H-Statements**

H226	Flammable liquid and vapor.
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.
H351	Suspected of causing cancer.
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).

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#### Full text of other abbreviations

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; TECI - Thailand Existing Chemicals 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