

1 Identification

- **Product identifier**
 - *Product number* TZ80
 - *Trade name:* **THINNER X PE PROD**
 - *Application of the substance / the mixture* For professional use
- **Details of the supplier of the safety data sheet**
 - *Manufacturer/Supplier:*
IVM Chemicals Srl
Viale della Stazione 3 -27020 Parona (PV)Italy -Tel +39 038425441
 - *Information department:*
Environmental Health and safety office
hseoffice@ivmchemicals.com
 - *Emergency telephone number:*
ChemTel Expert Assistance Hotline/SDS Fax Access by dialing 1-800-255-3924 or for International +1-813-248-0585.

2 Hazard(s) identification

- **Classification of the substance or mixture**

Flammable Liquids 3	H226 Flammable liquid and vapor.
Acute Toxicity - Inhalation 4	H332 Harmful if inhaled.
Skin Irritation 2	H315 Causes skin irritation.
Eye Irritation 2A	H319 Causes serious eye irritation.
Carcinogenicity 1B	H350 May cause cancer.
Toxic to Reproduction 2	H361 Suspected of damaging fertility or the unborn child.
Specific Target Organ Toxicity - Repeated Exposure 1	H372 Causes damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

· Label elements

- *GHS label elements*
The product is classified and labeled according to the Globally Harmonized System (GHS).
- *Hazard pictograms*



- *Signal word* Danger
- *Hazard-determining components of labeling:*
styrene
- *Hazard statements*
H226 Flammable liquid and vapor.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.
H412 Harmful to aquatic life with long lasting effects.

Product number TZ80
Trade name: THINNER X PE PROD

(Contd. of page 1)

Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



3 Composition/information on ingredients

Chemical characterization: Mixtures

Description:

Mixture: consisting of the following components.
Solvent mixture

Dangerous components:

100-42-5	styrene ⚠ Flammable Liquids 3, H226 ⚠ Carcinogenicity 1B, H350; Toxic to Reproduction 2, H361; Specific Target Organ Toxicity - Repeated Exposure 1, H372 ⚠ Acute Toxicity - Inhalation 4, H332; Skin Irritation 2, H315; Eye Irritation 2A, H319 Aquatic Chronic 3, H412	75-100%
110-19-0	isobutyl acetate ⚠ Flammable Liquids 2, H225 ⚠ Specific Target Organ Toxicity - Single Exposure 3, H336	<0.5%
123-31-9	1,4-dihydroxybenzene ⚠ Germ Cell Mutagenicity 2, H341; Carcinogenicity 2, H351 ⚠ Eye Damage 1, H318 ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1) ⚠ Acute Toxicity - Oral 4, H302; Sensitization - Skin 1, H317	<0.025%

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

(Contd. on page 3)

Product number TZ80

Trade name: THINNER X PE PROD

(Contd. of page 2)

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

personal protective equipment for first aid responders is recommended. (please see section 8)

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Take off immediately all contaminated clothing, include underwear and shoes (if necessary).

Rinse thoroughly with plenty of water for at least 20 minutes and take medical advise. If medical advise is needed have products container or label at hand.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist , consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.

· **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed**

For symptoms and effects caused by substances, refer to Section 11.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

- **Suitable extinguishing agents:**

Alcohol resistant foam

Alcohol resistant foam, CO, powder, water spray/mist.

- **For safety reasons unsuitable extinguishing agents:**

Do not use a jet water stream as it may scatter and spread fire.

· **Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

In case of fire, the following can be released:

Nitrogen oxides (NOx)

Carbon monoxide (CO)

· **Advice for firefighters**

Cool by spraying with water the containers to prevent product decomposition and the development of substances potentially hazardous for health and also, in the case of closed containers exposed to flames to prevent explosions.

- **Protective equipment:**

Hardhat with visor, fireproof clothing, suitable gloves and if necessary respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

· **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

(Contd. on page 4)

Product number TZ80**Trade name: THINNER X PE PROD**

(Contd. of page 3)

- **Methods and material for containment and cleaning up:**
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to Section 13.
 Ensure adequate ventilation.
- **Reference to other sections**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
100-42-5	styrene	20 ppm
110-19-0	isobutyl acetate	450 ppm
· PAC-2:		
100-42-5	styrene	130 ppm
110-19-0	isobutyl acetate	1300* ppm
· PAC-3:		
100-42-5	styrene	1100* ppm
110-19-0	isobutyl acetate	7500** ppm

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
 Ensure good ventilation/exhaustion at the workplace.
 Open and handle receptacle with care.
 Prevent formation of aerosols.
 Protect against electrostatic charges.
 Keep respiratory protective device available.
 Use explosion-proof apparatus / fittings and spark-proof tools.
 - **Information about protection against explosions and fires:**
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
 Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
 Provide solvent resistant, sealed floor.
 Observe the label precautions, the expiration date for the use, if not indicated, is from delivery date of goods.
 In cases where there is no reported expiration date, it means that the product must be used within 8 months.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** Those typical of the product and the instructions in the data sheet if required.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 5)

Product number TZ80
Trade name: THINNER X PE PROD

(Contd. of page 4)

· **Control parameters**

· *Components with limit values that require monitoring at the workplace:*

100-42-5 styrene

PEL	Long-term value: 100 ppm Ceiling limit value: 200; 600* ppm *5-min peak in any 3 hrs
REL	Short-term value: 425 mg/m , 100 ppm Long-term value: 215 mg/m , 50 ppm
TLV	Short-term value: 20 ppm Long-term value: 10 ppm BEI, OTO, A3

110-19-0 isobutyl acetate

PEL	Long-term value: 700 mg/m , 150 ppm
REL	Long-term value: 700 mg/m , 150 ppm
TLV	Short-term value: 150 ppm Long-term value: 50 ppm

123-31-9 1,4-dihydroxybenzene

PEL	Long-term value: 2 mg/m
REL	Ceiling limit value: 2* mg/m *15-min
TLV	Long-term value: 1 mg/m DSEN, A3

· *Ingredients with biological limit values:*

100-42-5 styrene

BEI	400 mg/g creatinine Medium: urine Time: end of shift Parameter: Mandelic acid plus phenylglyoxylic acid (nonspecific)
	40 g/L Medium: urine Time: end of shift Parameter: Styrene

· *Additional information:* The lists that were valid during the creation were used as basis.

· **Exposure controls**

· *Personal protective equipment:*

· *General protective and hygienic measures:*

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.
- Pregnant women should strictly avoid inhalation or skin contact.

· *Breathing equipment:*

Short term filter device:



Suitable respiratory protective device recommended.

Filter A

(Contd. on page 6)

Product number TZ80
Trade name: THINNER X PE PROD

(Contd. of page 5)

· **Protection of hands:**



Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The glove material has to be impermeable and resistant to the product .

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Color:	Colorless
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Mixture is non-polar/aprotic.

· **Change in condition**

· Melting point/Melting range:	-30.7 °C (-23.3 °F)
· Boiling point/Boiling range:	145.2 °C (293.4 °F)

· **Flash point:** 31 °C (87.8 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 480 °C (896 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

· Lower:	1.2 Vol %
· Upper:	8.9 Vol %

· **Vapor pressure at 20 °C (68 °F):** 6 hPa (4.5 mm Hg)

(Contd. on page 7)

Product number TZ80
Trade name: THINNER X PE PROD

(Contd. of page 6)

· Density (+/- 0,03) at 20 °C (68 °F):	0.906 g/cm (7.561 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water at 20 °C (68 °F):	0.24 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic at 20 °C (68 °F):	0.73 mPas
· Kinematic:	Not determined.
· Oxidising properties:	N.A.
· Solvent content:	
· VOC content:	99.88 % 904.9 g/l / 7.55 lb/gal
· Solids content:	97.5 %
· Other information (HAPS)	
100-42-5 styrene	75-100%
123-31-9 1,4-dihydroxybenzene	<0.025%
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** typical of the product as indicated in the data sheet
- **Chemical stability** The product is stable in normal conditions of storage and use recommended
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Vapours may form explosive mixtures with air
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Acids, alkalis and oxidizing agents
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimate)

Inhalative	LC50/4 h	11.9 mg/l (mouse)
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100-42-5 styrene

Oral	LD50	5,000 mg/kg (mouse)
Dermal	LD50	2,001 mg/kg (mouse)
Inhalative	LC50/4 h	11.8 mg/l (mouse)

110-19-0 isobutyl acetate

Oral	LD50	13,400 mg/kg (mouse)
Dermal	LD50	17,401 mg/kg (rabbit)

(Contd. on page 8)

Product number TZ80**Trade name: THINNER X PE PROD**

(Contd. of page 7)

Inhalative	LC50/4 h	31 mg/l (mouse)
123-31-9 1,4-dihydroxybenzene		
Oral	LD50	376 mg/kg (mouse)
Dermal	LD50	2,001 mg/kg (mouse)

- **Primary irritant effect:**
 - *on the skin:* Irritant to skin and mucous membranes.
 - *on the eye:* Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 - Harmful
 - Irritant
 - Harmful if inhaled.
 - Causes skin irritation.
 - Causes serious eye irritation.
 - May cause cancer.
 - Suspected of damaging fertility or the unborn child.
 - Causes damage to the hearing organs through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Carcinogenic categories**
 - Styrene
 - An increased incidence of lung tumors was observed in mice from an inhalation study on styrene. The relevance of this finding to humans is uncertain since data from mode of action investigations of mouse lung tumors coupled with other long-term animal studies and epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic.

· IARC (International Agency for Research on Cancer - Cl. 1 and 2)		
100-42-5	styrene	2A
· NTP (National Toxicology Program)		
100-42-5	styrene	75-100%
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

- **Toxicity** Harmful to aquatic life with long lasting effects.

· Aquatic toxicity:	
100-42-5 styrene	
EC50	4.9 mg/l (algae) (72 h) 4.7 mg/l (daphnia) (48 h)
LC50 (96h)	4.02 mg/l (Fish)
110-19-0 isobutyl acetate	
EC50	370 mg/l (algae) (72 h) 25 mg/l (daphnia)
LC50 (96h)	17 mg/l (Fish)
123-31-9 1,4-dihydroxybenzene	
EC50	0.33 mg/l (algae) (72 h) 0.13 mg/l (daphnia) (48 h)

(Contd. on page 9)

Product number TZ80**Trade name: THINNER X PE PROD**

(Contd. of page 8)

LC50 (96h) 0.09 mg/l (Fish)

- **Persistence and degradability** No further relevant information available.

- **Substances Easily biodegradable**

100-42-5 styrene .

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

- Water hazard class 2 (Self-assessment): hazardous for water

- Do not allow product to reach ground water, water course or sewage system.

- Danger to drinking water if even small quantities leak into the ground.

- Harmful to aquatic organisms

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Hand over to hazardous waste disposers.

- Dispose of contents and container in accordance with local state and federal regulations.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- DOT, IMDG, IATA

UN1263

- Note

Check viscosity and flash point at section 9

- **UN proper shipping name**

- DOT

Paint related material

- IMDG, IATA

PAINT RELATED MATERIAL

- **Transport hazard class(es)**

- DOT



- Class

3 Flammable liquids

- Label

3


- Class

3 Flammable liquids

(Contd. on page 10)

Product number TZ80
Trade name: THINNER X PE PROD

(Contd. of page 9)

· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	III
· DOT, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	30
· EMS Number:	F-E, S-E
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1263 PAINT RELATED MATERIAL, 3, III

15 Regulatory information

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

Requirements of Federal Register

· Various regulations

· SARA

· Section 355 (extremely hazardous substances):

123-31-9	1,4-dihydroxybenzene	<0.025%
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· Section 313 (Specific toxic chemical listings):

100-42-5	styrene	75-100%
123-31-9	1,4-dihydroxybenzene	<0.025%

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

100-42-5	styrene
123-31-9	1,4-dihydroxybenzene

(Contd. on page 11)

Product number TZ80
Trade name: THINNER X PE PROD

(Contd. of page 10)

· **Proposition 65**

· **Chemicals known to cause cancer:**

100-42-5	styrene	*	75-100%
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· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

100-42-5	styrene	A4
123-31-9	1,4-dihydroxybenzene	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** IVM Chemicals Srl
- **Contact:** See emergency phone
- **Date of preparation / last revision** 09/14/2022 / 97

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Flammable Liquids 2: Flammable liquids . Category 2
 Flammable Liquids 3: Flammable liquids . Category 3
 Acute Toxicity - Inhalation 4: Acute toxicity . Category 4

(Contd. on page 12)

Product number TZ80**Trade name: THINNER X PE PROD**

(Contd. of page 11)

*Skin Irritation 2: Skin corrosion/irritation . Category 2**Eye Damage 1: Serious eye damage/eye irritation . Category 1**Eye Irritation 2A: Serious eye damage/eye irritation . Category 2A**Sensitization - Skin 1: Skin sensitisation . Category 1**Germ Cell Mutagenicity 2: Germ cell mutagenicity . Category 2**Carcinogenicity 1B: Carcinogenicity . Category 1B**Carcinogenicity 2: Carcinogenicity . Category 2**Toxic to Reproduction 2: Reproductive toxicity . Category 2**Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) . Category 3**Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) . Category 1**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard . Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard . Category 1**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard . Category 3***• Sources**

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL and following amendments

Agency ECHA web site

INRS Fiche Toxicologique

IARC International agency for research on cancer

• * Data compared to the previous version altered.