

QUALIPUR 1250

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PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: QUALIPUR 1250**Revision Date:** 5/26/2021**Supplier Details:** Advanced Polymer Technology
109 Conica Lane, Evans City, PA 16033**Contact:** Senior Chemist**Phone:** 724-452-1330**Fax:** 724-452-1703**Email:** info@advpolytech.com**Internet:** www.advpolytech.com**Transportation emergency phone number:** ChemTel Inc. (800)255-3924, +1 (813)248-0585

Classification of Substance**GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):**

Health, Respiratory or skin sensitization, 1 Respiratory
Health, Specific target organ toxicity - Repeated exposure, 2
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Respiratory or skin sensitization, 1 Skin
Health, Specific target organ toxicity - Single exposure, 3
Environmental, Hazards to the aquatic environment - Chronic, 3
Physical, Flammable Liquids, 3
Environmental, Hazards to the aquatic environment - Acute, 3

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:**GHS Hazard Statements:**

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H412 - Harmful to aquatic life with long lasting effects
H226 - Flammable liquid and vapour
H336 - May cause drowsiness or dizziness
H402 - Harmful to aquatic life

GHS Precautionary Statements:

P285 - In case of inadequate ventilation wear respiratory protection.
P264 - Wash hands thoroughly after handling.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P342+311 - Call a POISON CENTER or doctor/physician.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.
P337+313 - Get medical advice/attention.
P314 - Get Medical advice/attention if you feel unwell.
P302+352 - IF ON SKIN: Wash with soap and water.
P403+233 - Store in a well ventilated place. Keep container tightly closed.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P370 + P378 - In case of fire: Use sand, dry chemical foam to extinguish.
P304 + P312 - IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Chemical Ingredients:		
CAS#	%	Chemical Name:
9051-58-5	>50%	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]-.omega.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]-
101-68-8	<40%	4,4'-Methylenediphenyl diisocyanate
26447-40-5	<10%	Benzene, 1,1'-methylenebis[isocyanato-
9016-87-9	<10%	Isocyanic acid, polymethylenepolyphenylene ester
584-84-9	<0.2%	Benzene, 2,4-diisocyanato-1-methyl
91-08-7	<0.05%	Benzene, 1,3-diisocyanato-2-methyl
26471-62-5	<0.2%	Toluene diisocyanate
123-86-4	<10%	n-Butyl acetate

- Inhalation:** Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
- Skin Contact:** Immediately wash with water and soap and rinse thoroughly. Immediately remove any clothing soiled by the product. If skin irritation continues, consult a doctor.
- Eye Contact:** Protect unharmed eye. Rinse opened eye for several minutes under running water. Remove contact lenses if worn, if possible. Rinse opened eye for several minutes under running water. Then consult a doctor.
- Ingestion:** Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed

Asthma attacks
Allergic reactions
Breathing difficulty
Coughing

Hazards

Danger of impaired breathing.
Danger of pulmonary oedema.
Danger of pneumonia.
Danger of convulsion.
Danger of disturbed cardiac rhythm.

Indication of any immediate medical attention and special treatment needed

Contains isocyanates. Consult literature for specific antidotes.
Medical supervision for at least 48 hours.
Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.
Monitor circulation, possible shock treatment.
Later observation for pneumonia and pulmonary oedema.
If necessary oxygen respiration treatment.
Treat skin and mucous membrane with antihistamine and corticoid preparations.

Flash Point: 27 °C (81 °F) - closed cup - Regulation (EC) No. 440/2008, Annex, A.9

Suitable extinguishing agents:

CO₂, powder. Fight larger fires with alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water.

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Hydrogen cyanide (HCN)

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information Cool endangered receptacles with water spray.

Isolate area and prevent access.

Remove persons from danger area.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

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

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

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 regulations.

Ensure adequate ventilation.

Additional Spill Procedures/Neutralization: Neutralization solutions:

(1) Colorimetric Laboratories Inc. (CLI) decontamination solution.

(2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10) and 5% npropanol.

(3) A mixture of 80% water, 20% non-ionic surfactant (e.g. Plurafac SL-62, Tergitol TMN-10).

(4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.

Handling Precautions:

Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.

Storage Requirements:

Requirements to be met by storerooms and receptacles:
Provide ventilation for receptacles.
Store in a cool location.
Protect from humidity and water.
Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:
Store away from water.
Store away from foodstuffs.
Do not store together with oxidizing and acidic materials.

Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from humidity and water.
Protect from heat and direct sunlight.
Keep container tightly sealed.

Engineering Controls:

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Ensure compliance yo all relevant OSHA regulations.

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.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

Respiratory protection:

An air-supplied respirator must be worn during spray applications, during long-term (over 1 hour) exposures when the product is heated or in environments of high concentrations near the TLV, an air-purifying respirator equipped with organic cartridges or canisters and dust filters can be used. However, due to the poor warning properties of this product, proper fit and timely replacement of filter elements must be ensured. Observe OSHA regulations for respirator use (29 CFR 1910.134).

Protection of hands:**Protective gloves**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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.

For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Nitrile rubber, NBR

Eye protection:

Contact lenses should not be worn.
Safety glasses with side shields or face shield strongly suggested.

Body protection: Use protective suit.

Limitation and supervision of exposure into the environment

No further relevant information available.

Risk management measures

Organizational measures should be in place for all activities involving this product.

Control parameters

Ingredients with limit values that require monitoring at the workplace:

101-68-8 4,4'-methylenediphenyl diisocyanate

PEL (USA) Short-term value: C 0,2 mg/m³, C 0,02 ppm

REL (USA) Short-term value: C 0,2* mg/m³, C 0,02* ppm, Long-term value: 0,05 mg/m³, 0,005 ppm, *10-min

TLV (USA) 0,051 mg/m³, 0,005 ppm

EL (Canada) Short-term value: C 0,01 ppm, Long-term value: 0,005 ppm, Skin; S

EV (Canada) 0,005 ppm

123-86-4 n-Butyl acetate

TWA 150 ppm USA. ACGIH Threshold Limit Values (TLV)

STEL 200 ppm USA. ACGIH Threshold Limit Values (TLV)

TWA 150 ppm 710 mg/m³ USA. NIOSH Recommended Exposure Limits

ST 200 ppm 950 mg/m³ USA. NIOSH Recommended Exposure Limits

TWA 150 ppm 710 mg/m³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants The value in mg/m³ is approximate.

PEL 150 ppm 710 mg/m³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)

STEL 200 ppm 950 mg/m³ California permissible exposure limits for chemical contaminants (Title 8, Article 107)

TWA 50 ppm USA. ACGIH Threshold Limit Values (TLV)

STEL 150 ppm USA. ACGIH Threshold Limit Values (TLV)

Remarks:

Upper Respiratory Tract irritation

Eye irritation

Adopted values or notations enclosed are those for which changes are proposed in the NIC

See Notice of Intended Changes (NIC)

9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance: Clear Brown Liquid

Physical State: Liquid

Specific Gravity or Density: 1.01 g/mL

Odor: Slightl characteristic

Flash Point: 27 °C (81 °F) - closed cup - Regulation (EC) No. 440/2008, Annex, A.9 Annex, A.9

Autoignition Temperature: 415 °C (779 °F) at 1,010 hPa - DIN 51794

Upper Flammability Limit and Lower Flammability Limit: Upper explosion limit: 7.6 %(V)
Lower explosion limit: 1.7 %(V)

10	STABILITY AND REACTIVITY
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Chemical Stability: No decomposition if used and stored according to specifications. Vapours may form explosive mixture with air.

Conditions to Avoid identification: Keep ignition sources away - Do not smoke.
Moisture.
Keep away from heat and direct sunlight.
Store away from oxidizing agents.

Materials to Avoid identification: Reacts with water.
Reacts with oxidizing agents.
Reacts with alkali, amines and strong acids.
Contact with acids releases toxic gases.
Reacts with peroxides and other radical forming substances.
Reacts with certain metals.

Hazardous Decomposition: Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Hydrogen cyanide (prussic acid)
Poisonous gases/vapours

Hazardous Polymerization: Reacts with water.

LD/LC50 values relevant for classification:**101-68-8 4,4'-methylenediphenyl diisocyanate**

Oral LD50 2200 mg/kg (mouse)

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

Subacute to chronic toxicity: Toxic and/or corrosive effects may be delayed up to 24 hours.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful Irritant

Acute effects (acute toxicity, irritation and corrosivity):

In addition to local irritant manifestations, there is a narcotic effect when inhaling high concentrations, with the danger of central respiratory arrest.

Sensitisation: Sensitization possible by inhalation and/or dermal contact.

Repeated dose toxicity:

May cause damage to organs through prolonged or repeated exposure .

Repeated exposures may result in skin and/or respiratory sensitivity.

123-86-4 n-Butyl acetate**Acute toxicity**

LD50 Oral - Rat - female - 10,760 mg/kg

(OECD Test Guideline 423)

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - 14,112 mg/kg

(OECD Test Guideline 402)

No data available

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

OECD Test Guideline 474

Mouse - male and female - Red blood cells (erythrocytes)

Result: negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Acute oral toxicity - Risk of aspiration upon vomiting., Aspiration may cause pulmonary oedema and pneumonitis.

12	ECOLOGICAL INFORMATION
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Toxicity

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 18 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - 44 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 397 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products)

Toxicity to bacteria static test IC50 - Tetrahymena pyriformis - 356 mg/l - 40 h Remarks: (ECHA)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

Discharge into the environment must be avoided.

13	DISPOSAL CONSIDERATIONS
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Recommendation

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

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

UN1263, Paint related material including paint thinning, drying, removing, or reducing compound, 3, PGIII, (Butyl acetates)

UN-Number

DOT, ADR, IMDG, IATA

UN1263

UN proper shipping name

DOT, IATA

PAINT RELATED MATERIAL (contains Butyl acetates)

ADR

1263 PAINT RELATED MATERIAL (contains Butyl acetates)

IMDG

PAINT RELATED MATERIAL (contains Butyl acetates)

Transport hazard class(es)

DOT Class

3 Flammable liquids.

Label

3

ADR Class

3 (F1) Flammable liquids.

Label

3

IMDG Class

3 Flammable liquids.

Label

3

IATA Class

3 Flammable liquids.

Label

3

Packing group

DOT, ADR, IMDG, IATA

III

Special precautions for user

Warning: Flammable liquids.

Danger code (Kemler):

30

EMS Number:

F-E,S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ)

5L

Transport category

3

Tunnel restriction code

D/E

UN "Model Regulation": UN1263, PAINT, 3, III

15	REGULATORY INFORMATION
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[%] RQ (CAS#) Substance - Reg Codes

[>50%] Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]-.omega.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]- (9051-58-5) TSCA

[<40%] 4,4'-Methylenediphenyl diisocyanate (101-68-8) CERCLA, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

[<10%] Benzene, 1,1'-methylenebis[isocyanato- (26447-40-5) TSCA

[<10%] Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9) SARA313, TSCA

[<0.2%] RQ(10LBS), Benzene, 2,4-diisocyanato-1-methyl (584-84-9) CERCLA, EHS302, HAP, MASS, NJEHS, NJHS, NRC, OSHAWAC, PA, SARA313, TSCA, TXAIR

[<0.05%] RQ(10LBS), Benzene, 1,3-diisocyanato-2-methyl (91-08-7) CERCLA, EHS302, MASS, NJHS, PA, SARA313, TSCA, TXAIR

[<0.2%] Toluene diisocyanate (26471-62-5) CERCLA, HAP, MASS, NJEHS, NJHS, PA, PROP65, SARA313, TOXICRCRA, TSCA, TXHWL

[<10%] RQ(5000LBS), n-Butyl acetate (123-86-4) CERCLA, CSWHS, MASS, OSHAWAC, PA, TSCA, TXAIR



WARNING

This product can expose you to chemicals including Toluene diisocyanate, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Regulatory Code Legend

RQ = Reportable Quantity
TSCA = Toxic Substances Control Act
CERCLA = Superfund Cleanup Substances
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TXAIR = TX Air Contaminants with Health Effects Screening Level
EHS302 = Extremely Hazardous Substance
NJEHS = NJ Extraordinarily Hazardous Substances
NRC = Nationally Recognized Carcinogens
PROP65 = CA Prop 65
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TXHWL = TX Hazardous Waste List
CSWHS = Clean Water Act Hazardous Substances

16	OTHER INFORMATION
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HMIS	
HEALTH	☒ ☐
FLAMMABILITY	☐
PHYSICAL HAZARD	☐
PERSONAL PROTECTION	☐

PPE

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.

Revision Date: 5/26/2021