



Groundvex 3401

1	PRODUCT AND COMPANY IDENTIFICATION
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Product Identifier: Groundvex 3401
Revision Date: 8/22/2025
Version: 100
Supplier Details: Synergy Building Technologies
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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, Acute toxicity, 4 Oral
 Health, Acute toxicity, 4 Inhalation
 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

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
 H302 - Harmful if swallowed
 H332 - Harmful if inhaled
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H317 - May cause an allergic skin reaction
 H335 - May cause respiratory irritation

GHS Precautionary Statements:

P285 - In case of inadequate ventilation wear respiratory protection.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
 P305 + P351 + P338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P342 + P311 - Call a POISON CENTER or doctor/physician.
 P332 + P313 - If skin irritation occurs: Get medical advice/attention.
 P337 + P313 - Get medical advice/attention.
 P314 - Get Medical advice/attention if you feel unwell.
 P302 + P352 - IF ON SKIN: Wash with soap and water.
 P403 + P233 - Store in a well ventilated place. Keep container tightly closed.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS**Chemical Ingredients**

CAS#	%	Chemical Name
1408295-67-9	50-100%	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]-.omega.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]- Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]-.omega.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]-
1359944-75-4	<10%	Benzene, 1,1'-methylenebis[isocyanato-
26447-40-5	<10%	4,4'-Methylenediphenyl diisocyanate
101-68-8	<10%	Distillates, petroleum, hydrotreated middle
64742-46-7	10-25%	

4	FIRST AID MEASURES
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- Inhalation:** Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation. In case of irregular breathing or respiratory arrest provide artificial respiration.
- 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.

5	FIRE FIGHTING MEASURES
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Suitable extinguishing agents:
CO₂, powder or water spray. Fight larger fires with water spray or 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 with all relevant OSHA regulations.

Personal Protective Equipment:

General protective and hygienic measures:
Keep away from food stuffs, 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:

Airborne MDI concentrations greater than the ACGIH TLV-TWA (TLV) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when MDI is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge.

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.

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 0,02ppm

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

EV (Canada) 0,005 ppm

9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	Clear Brown Liquid	Odor:	No data available
Physical State:	Liquid	Solubility:	No data available
Odor Threshold:	No data available	Freezing or Melting Point:	No data available
Specific Gravity or Density:	1.1 g/mL	Flash Point:	388 °F / 198 °C
Viscosity:	No data available	Vapor Density:	No data available
Boiling Point:	No data available	Autoignition Temperature:	>572 °F / >300 °C
Partition Coefficient:	No data available	UFL / LFL:	No data available
Vapor Pressure:	No data available		
Potentia Hydrogenii:	No data available		
Evaporation Rate:	No data available		
Decompression Temperature:	No data available		

10	STABILITY AND REACTIVITY
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Chemical Stability:	No decomposition if used and stored according to specifications.
Conditions to Avoid:	Keep ignition sources away. Do not smoke. Avoid moisture. Keep away from heat and direct sunlight.
Materials to Avoid:	Water. Oxidizing agents. Alkalis. Amines. Strong acids. Peroxides and other radical-forming substances. Certain metals.
Hazardous Reactions:	Reacts with water. Reacts with oxidizing agents. Reacts with alkalis, amines, and strong acids. Contact with acids may release 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.

11	TOXICOLOGICAL INFORMATION
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LD/LC50 values relevant for classification: 101-68-8 4,4'-methylenediphenyl diisocyanate
 OralLD502200mg/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.

Aquatic toxicity: The material is harmful to the environment.

Persistence and degradability: The product is partly biodegradable. Significant residuals remain.

Bioaccumulative potential : Does not accumulate in organisms

Mobility in soil: No further relevant information available.

Ecotoxicological effects:

Remark: Harmful to fish

Additional ecological information:

General notes:

This statement was deduced from the properties of the single components.

Avoid transfer into the environment.

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

Recommendation

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

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Solvent naphtha

UN-Number DOT, ADR, ADN, IMDG, IATA

N/A

UN proper shipping name DOT, ADR, ADN, IMDG, IATA

Aromatic Isocyanate Prepolymer

Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class

N/A

Packing group DOT, ADR, IMDG, IATA

N/A

Marine pollutant

No

Special precautions for user

Not applicable.

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

Not applicable.

"Model Regulation"

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

[50-100%] Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]-.omega.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]- (1408295-67-9)

[<10%] Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]-.omega.-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]- (1359944-75-4)

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

[<10%] RQ(5000LBS), 4,4'-Methylenediphenyl diisocyanate (101-68-8) CERCLA, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TSCAACTV, TXAIR

[10-25%] Distillates, petroleum, hydrotreated middle (64742-46-7) TSCA, TSCAACTV

Regulatory Code Legend

CERCLA = Superfund Cleanup Substances

HAP = Hazardous Air Pollutants

MASS = MA Massachusetts Hazardous Substances List

NJHS = NJ Right-to-Know Hazardous Substances

OSHA WAC = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

RQ = Reportable Quantity

SARA313 = SARA 313 Title III Toxic Chemicals

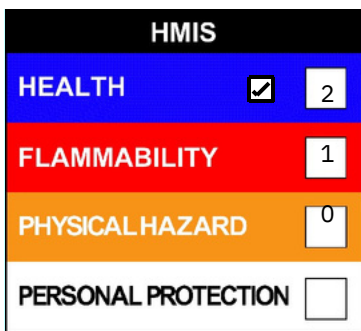
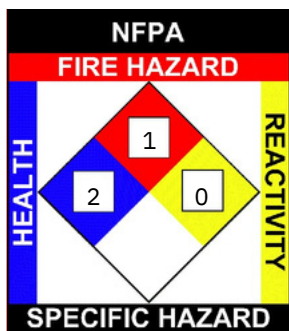
TSCA = Toxic Substances Control Act

TSCAACTV = TSCA Active Chemicals

TXAIR = TX Air Contaminants with Health Effects Screening Level

NFPA:HM Health = 2, Fire = 1, Reactivity = 0, Specific Hazard = n/a

IS III: Health = 2(Chronic), Fire = 1, Physical Hazard = 0



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.

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