

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/29/2020

Reviewed on 08/27/2020

1 Identification

- **Product identifier**

- **Trade name:** UV3D90A, E-UA90
- **Synonyms:** UV Shoe sole rubber

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**
ND Industries, Inc
1000 North Crooks Road
Clawson, MI 48017
USA
Telephone: +1-248-288-0000
Email: info@ndindustries.com
Website: www.ndindustries.com

- **Information department:** Product Safety Department

- **Emergency telephone number:**
United States: 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

- Skin Corr. 1A H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.



GHS07

- Acute Tox. 4 H312 Harmful in contact with skin.
- Skin Sens. 1 H317 May cause an allergic skin reaction.
- STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

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

- **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

- Monofunctional acid ester
- dodecyl acrylate
- 4,4'-methylenebis(cyclohexyl isocyanate)
- diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
- Polyether Urethane Methacrylate
- 2-tert-butylaminoethyl methacrylate

- **Hazard statements**

- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H361 Suspected of damaging fertility or the unborn child.
- H335 May cause respiratory irritation.

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- Precautionary statements

P260	Do not breathe dusts or mists.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P280	Wear protective gloves.
P280	Wear protective gloves / protective clothing.
P280	Wear eye protection / face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304+P341	If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P312	Call a poison center/doctor if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Other hazards**- Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 2156-97-0	dodecyl acrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	30 – 39%
	Polyether Urethane Methacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317; STOT SE 3, H335	10 – 19%
	Monofunctional acid ester Acute Tox. 3, H311; Skin Corr. 1C, H314; Eye Dam. 1, H318; Skin Sens. 1, H317	10 – 19%
CAS: 3775-90-4	2-tert-butylaminoethyl methacrylate Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	10 – 19%
CAS: 79-10-7	acrylic acid Flam. Liq. 3, H226; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	5 – 9%
CAS: 5124-30-1	4,4'-methylene(dicyclohexyl isocyanate) Acute Tox. 3, H331; Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	1 – 4%
CAS: 75980-60-8	diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide Repr. 2, H361; Skin Sens. 1, H317	1 – 4%
CAS: 2478-10-6	4-hydroxybutyl acrylate Acute Tox. 3, H301; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	≤ 1%

4 First-aid measures

- Description of first aid measures**- General information:**

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

- After inhalation:

Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

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- **Information for doctor:**
 - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
 - **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
 - **Protective equipment:**
 - Mouth respiratory protective device.
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Wear protective equipment. Keep unprotected persons away.
 - Ensure adequate ventilation
 - Wear protective clothing.
- **Environmental precautions:**
 - 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:**
 - Use neutralizing agent.
 - Dispose contaminated material as waste according to item 13.
 - Ensure adequate ventilation.
 - Dispose of the collected material according to regulations.
- **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.

7 Handling and storage

- **Handling:**
 - **Precautions for safe handling**
 - Thorough dedusting.
 - Ensure good ventilation/exhaustion at the workplace.
 - Open and handle receptacle with care.
 - Prevent formation of dust.
 - **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:** No special requirements.
 - **Information about storage in one common storage facility:** Not required.
 - **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
 - **Components with limit values that require monitoring at the workplace:**
 - The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
 - At this time, the other constituents have no known exposure limits.

CAS: 79-10-7 acrylic acid

REL	Long-term value: 6 mg/m ³ , 2 ppm Skin
TLV	Long-term value: 5.9 mg/m ³ , 2 ppm Skin

CAS: 5124-30-1 4,4'-methylene(di(cyclohexyl isocyanate))

REL	Ceiling limit value: 0.11 mg/m ³ , 0.01 ppm
TLV	Long-term value: 0.054 mg/m ³ , 0.005 ppm

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

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- 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.

- Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- Protection of hands:

Protective gloves

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

Nitrile rubber, NBR

- 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

- Body protection: Protective work clothing

9 Physical and chemical properties

- Information on basic physical and chemical properties**- General Information****- Appearance:****- Form:**

Solid

- Color:

According to product specification

- Odor:

Characteristic

- Odor threshold:

Not determined.

- pH-value:

Not applicable.

- Change in condition**- Melting point/Melting range:**

Undetermined.

- Boiling point/Boiling range:

≥ 141 °C (≥ 285.8 °F)

- Flash point:

Not applicable.

- Flammability (solid, gaseous):

Not determined.

- Decomposition temperature:

Not determined.

- Auto igniting:

Product is not selfigniting.

- Danger of explosion:

Product does not present an explosion hazard.

- Explosion limits:**- Lower:**

Not determined.

- Upper:

Not determined.

- Vapor pressure:

Not applicable.

- Density at 20 °C (68 °F):~ 1.2244 g/cm³ (~ 10.21762 lbs/gal)**- Relative density**

Not determined.

- Vapor density

Not applicable.

- Evaporation rate

Not applicable.

- Solubility in / Miscibility with**- Water:**

Insoluble.

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- Partition coefficient (n-octanol/water): Not determined.	
- Viscosity:	
- Dynamic:	Not applicable.
- Kinematic:	Not applicable.
- Solvent content:	
- VOC content:	0.00 %
- Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **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)

Oral	LD50	2,857 mg/kg
Dermal	LD50	1,298 mg/kg
Inhalative	LC50/4 h	12.2 mg/l

Monofunctional acid ester

Dermal	LD50	300 mg/kg (ATE)
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CAS: 79-10-7 acrylic acid

Oral	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

CAS: 5124-30-1 4,4'-methylene(dicyclohexyl isocyanate)

Inhalative	LC50/4 h	0.5 mg/l (ATE)
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CAS: 75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Oral	LD50	> 5,000 mg/kg (rat)
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CAS: 2478-10-6 4-hydroxybutyl acrylate

Oral	LD50	100 mg/kg (ATE)
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- **Primary irritant effect:**

- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.

- **Sensitization:**

- Sensitization possible through inhalation.
- Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 79-10-7 acrylic acid	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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12 Ecological information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **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 1 (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.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **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.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

<ul style="list-style-type: none"> - UN-Number - DOT, IMDG, IATA 	UN1759
<ul style="list-style-type: none"> - UN proper shipping name - DOT - IMDG - IATA 	Corrosive solids, n.o.s. (Acrylic acid, stabilized, Methacrylate acid ester, 2-(2-Ethoxyethoxy)ethyl acrylate) CORROSIVE SOLID, N.O.S. (ACRYLIC ACID, STABILIZED, Methacrylate acid ester, 2-(2-Ethoxyethoxy)ethyl acrylate), MARINE POLLUTANT CORROSIVE SOLID, N.O.S. (ACRYLIC ACID, STABILIZED, Methacrylate acid ester, 2-(2-Ethoxyethoxy)ethyl acrylate)
<ul style="list-style-type: none"> - Transport hazard class(es) - DOT 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> - Class - Label
<ul style="list-style-type: none"> - Class - Label 	8 Corrosive substances 8
<ul style="list-style-type: none"> - IMDG 	<div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> - Class - Label
<ul style="list-style-type: none"> - Class - Label 	8 Corrosive substances 8
<ul style="list-style-type: none"> - IATA 	<div style="display: flex; align-items: center; gap: 10px;">  </div> <ul style="list-style-type: none"> - Class - Label
<ul style="list-style-type: none"> - Class - Label 	8 Corrosive substances 8

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- Packing group - DOT, IMDG, IATA	II
- Environmental hazards: - Marine pollutant:	Product contains environmentally hazardous substances: acrylic acid Yes (DOT) Symbol (fish and tree)
- Special precautions for user - Hazard identification number (Kemler code): - EMS Number: - Segregation groups - Stowage Category	Warning: Corrosive substances 80 F-A,S-B Acids A
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
- Transport/Additional information: - DOT - Quantity limitations - Remarks:	On passenger aircraft/rail: 15 kg On cargo aircraft only: 50 kg Special marking with the symbol (fish and tree).
- IMDG - Limited quantities (LQ) - Excepted quantities (EQ)	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
- UN "Model Regulation":	UN 1759 CORROSIVE SOLID, N.O.S. (ACRYLIC ACID, STABILIZED, METHACRYLATE ACID ESTER, 2-(2-ETHOXYETHOXY)ETHYL ACRYLATE), 8, II, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

	Monofunctional acid ester
CAS: 79-10-7	acrylic acid
CAS: 5124-30-1	4,4'-methylenedi(cyclohexyl isocyanate)

- **TSCA (Toxic Substances Control Act):**

dodecyl acrylate	ACTIVE
Monofunctional acid ester	ACTIVE
2-tert-butylaminoethyl methacrylate	ACTIVE
acrylic acid	ACTIVE
4,4'-methylenedi(cyclohexyl isocyanate)	ACTIVE
Amorphous Silica	ACTIVE
diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide	ACTIVE
2-hydroxy-2-methylpropiophenone	ACTIVE
4-hydroxybutyl acrylate	ACTIVE
dibutyltin dilaurate	ACTIVE
Polymerization inhibitor	ACTIVE

- **Hazardous Air Pollutants**

CAS: 79-10-7 acrylic acid

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

Monofunctional acid ester

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- Chemicals known to cause reproductive toxicity for males:		
Monofunctional acid ester		
- Chemicals known to cause developmental toxicity:		
Monofunctional acid ester		
- Carcinogenic categories		
- EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
- TLV (Threshold Limit Value established by ACGIH)		
CAS: 79-10-7	acrylic acid	A4
CAS: 77-58-7	dibutyltin dilaurate	A4
- NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
- 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:** ND Industries, Inc. - Safety, Health and Environmental Affairs
- **Contact:** Safety, Health and Environmental Affairs
- **Classification System:**

- **HMIS-ratings (scale 0 - 4)**

HEALTH	3	Health = *3
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **NFPA ratings (scale 0 - 4)**

3	0	0	Health = 3
			Fire = 0
			Reactivity = 0

- **Date of preparation / last revision** 10/29/2020 / 2

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 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)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 Flam. Liq. 3: Flammable liquids – Category 3
 Acute Tox. 4: Acute toxicity – Category 4
 Acute Tox. 3: Acute toxicity – Category 3
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A
 Skin Corr. 1C: Skin corrosion/irritation – Category 1C
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 Resp. Sens. 1: Respiratory sensitisation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Skin Sens. 1B: Skin sensitisation – Category 1B
 Repr. 2: Reproductive toxicity – Category 2
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- *** Data compared to the previous version altered.**

- **Disclaimer**

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