



Prestone



SAFETY DATA SHEET Radweld Plus

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	Radweld Plus
Product number	RW2RGA, HREP0070A, HREP0071A
Internal identification	NQA2415
UFI	UFI: 8AP6-60HR-E001-WUHS
REACH registration notes	This is a MIXTURE; no registration information contained in this document . Holts are classed as Downstream User.

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

Identified uses Car maintenance product.

1.3. Details of the supplier of the safety data sheet

Supplier	Holt Lloyd International Ltd Barton Dock Road Stretford Manchester M32 0YQ - England, UK +44 (0) 161 866 4800 FAX +44 (0) 161 866 4854 www.holtsauto.com
Contact person	Contact Email address: info@holtsauto.com

1.4. Emergency telephone number

Emergency telephone UK - 00 44 (0) 161 866 4800 Office hrs = 0900 - 1700 hrs

National emergency telephone number National Poisons Information Service
City Hospital, Birmingham B187QH, United Kingdom
Telephone: +44 121 507 4123
Email: allistervale@npis.org, sallybradberry@npis.org

www.npis.org

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Repr. 2 - H361d
Environmental hazards	Not Classified

2.2. Label elements

Radweld Plus

Hazard pictograms



Signal word	Warning
Hazard statements	H361d Suspected of damaging the unborn child.
Precautionary statements	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P202 Do not handle until all safety precautions have been read and understood. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P308+P313 IF exposed or concerned: Get medical advice/ attention. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
UFI	UFI: 8AP6-60HR-E001-WUHS
Contains	TOLUENE
Supplementary precautionary statements	P201 Obtain special instructions before use.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

TOLUENE		5-10%
CAS number: 108-88-3	EC number: 203-625-9	REACH registration number: 01-2119471310-51-XXXX
Classification		
Flam. Liq. 2 - H225		
Skin Irrit. 2 - H315		
Repr. 2 - H361d		
STOT SE 3 - H336		
STOT RE 2 - H373		
Asp. Tox. 1 - H304		
Trisodium Citrate Dihydrate		1-5%
CAS number: 6132-04-3	EC number: 200-675-3	REACH registration number: 01-2119457027-40-XXXX
Classification		
Not Classified		

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(Benzyloxy)methanol	<1%
CAS number: 14548-60-8 EC number: 238-588-8	
Classification	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
SODIUM HYDROXIDE	<1%
CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-2119457892-27-XXXX	
Classification	
Skin Corr. 1A - H314	
Eye Dam. 1 - H318	
METHYL METHACRYLATE	<1%
CAS number: 80-62-6 EC number: 201-297-1	
Classification	
Flam. Liq. 2 - H225	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
BUTYL ACRYLATE, -norm	<1%
CAS number: 141-32-2 EC number: 205-480-7	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Treat symptomatically.
Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.

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Skin contact Remove affected person from source of contamination. Get medical attention if any discomfort continues.

Eye contact Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation This is unlikely to occur but symptoms similar to those of ingestion may develop.

Ingestion May cause discomfort if swallowed.

Skin contact May be slightly irritating to skin. Prolonged skin contact may cause redness and irritation.

Eye contact May be slightly irritating to eyes. Prolonged contact may cause redness and/or tearing.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards In case of fire, toxic and corrosive gases may be formed. No unusual fire or explosion hazards noted.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Avoid spilling. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

Storage class Unspecified storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

TOLUENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 191 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 150 ppm(Sk) 574 mg/m³(Sk)

SODIUM HYDROXIDE

Long-term exposure limit (8-hour TWA): WEL

Short-term exposure limit (15-minute): WEL 2 mg/m³

METHYL METHACRYLATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m³

BUTYL ACRYLATE, -norm

Long-term exposure limit (8-hour TWA): WEL 1 ppm 5 mg/m³

Short-term exposure limit (15-minute): WEL 5 ppm 26 mg/m³

WEL = Workplace Exposure Limit.

Ingredient comments WEL = Workplace Exposure Limits

TOLUENE (CAS: 108-88-3)

DNEL	Workers - Inhalation; Long term systemic effects: 192 mg/m ³ Workers - Inhalation; Short term systemic effects: 384 mg/m ³ Workers - Inhalation; Long term local effects: 192 mg/m ³ Workers - Inhalation; Short term local effects: 384 mg/m ³ Workers - Dermal; Long term systemic effects: 384 mg/kg bw/day General population - Inhalation; Long term systemic effects: 56.5 mg/m ³ General population - Inhalation; Short term systemic effects: 226 mg/m ³ General population - Inhalation; Long term local effects: 56.5 mg/m ³ General population - Dermal; Long term systemic effects: 226 mg/kg bw/day General population - Oral; Long term systemic effects: 8.13 mg/kg bw/day
PNEC	Fresh water; 0.68 mg/l Fresh water, Intermittent release; 0.68 mg/l marine water; 0.68 mg/l STP; 13.61 mg/l Sediment (Freshwater); 16.39 mg/kg sediment dw Sediment (Marinewater); 16.39 mg/l Soil; 2.89 mg/kg soil dw

Trisodium Citrate Dihydrate (CAS: 6132-04-3)

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PNEC	Fresh water; 0.44 mg/l marine water; 0.044 mg/l STP; 1000 mg/l Sediment (Freshwater); 34.6 mg/kg sediment dw Sediment (Marinewater); 3.46 mg/kg sediment dw Soil; 39.1 mg/kg soil dw
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SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL	Consumer - Inhalation; Long term local effects: 1 mg/m ³ Workers - Dermal; Short term local effects: 2 mg/kg/day Workers - Inhalation; Short term local effects: 2 mg/m ³ Workers - Inhalation; Long term local effects: 1 mg/m ³
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8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Rubber (natural, latex). To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not eat, drink or smoke when using this product.

Respiratory protection

Respiratory protection not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Buff.
Odour	Mild. Aromatic.
pH	pH (concentrated solution): 11
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	> 60°C Closed cup.
Evaporation rate	No information available.

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Evaporation factor	No information available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.025 @ 20°C
Bulk density	Not applicable.
Solubility(ies)	Miscible with water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not applicable.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not applicable.

9.2. Other information

Volatile organic compound This product contains a maximum VOC content of 5 %.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not applicable. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.

Radweld Plus

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Contains an ingredient listed as: Known reproductive toxicant based on animal evidence.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant.

Inhalation No specific health hazards known.

Ingestion May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin contact May be slightly irritating to skin. Prolonged and frequent contact may cause redness and irritation.

Eye contact May be slightly irritating to eyes.

Acute and chronic health hazards Only large quantities are likely to have adverse effects on human health.

Toxicological information on ingredients.

TOLUENE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 5000 mg/kg, Oral, Rat

Radweld Plus

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 5000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ > 20 mg/l, Inhalation, Human NOAEC 300 mg/m³, Inhalation, Human

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Carcinogenicity

Carcinogenicity No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Reproductive toxicity - fertility Suspected of damaging fertility. Fertility - NOAEC 4522 mg/m³, Inhalation, Rat F1

Specific target organ toxicity - single exposure

STOT - single exposure Central and/or peripheral nervous system damage.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Brain damage. Hearing loss Effects on colour vision

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

(Benzylloxy)methanol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,700.0

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,500.0

Species Rat

ATE dermal (mg/kg) 1,100.0

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Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 502.0

Species Rat

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

SODIUM HYDROXIDE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 500.0

Species Rat

SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment. The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity No information available.

Acute aquatic toxicity

Acute toxicity - fish Not available.

Acute toxicity - aquatic invertebrates Not available.

Acute toxicity - aquatic plants Not available.

Acute toxicity - microorganisms Not available.

Acute toxicity - terrestrial Not available.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage Not available.

Short term toxicity - embryo and sac fry stages Not available.

Chronic toxicity - aquatic invertebrates Not available.

Ecological information on ingredients.

TOLUENE

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Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 5.5 mg/l, Oncorhynchus kisutch (Coho salmon)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 3.78 mg/l, Freshwater invertebrates
Acute toxicity - aquatic plants	EC ₅₀ , 3 hours: 134 mg/l, Chlorella vulgaris and Chlamydomonas angulosa NOEC, 72 hours: 10 mg/l, Skeletonema costatum
Acute toxicity - microorganisms	IC ₅₀ , 24 hours: 84 mg/l, Nitrosomonas sp.

Chronic aquatic toxicity

Short term toxicity - embryo and sac fry stages	NOEC, 40 days: 1.4 mg/l, Oncorhynchus kisutch (Coho salmon)
Chronic toxicity - aquatic invertebrates	NOEC, 7 days: 0.74 mg/l, Ceriodaphnia dubia

(Benzyloxy)methanol

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 81.5 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 43 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 17.7 mg/l, Scenedesmus subspicatus

SODIUM HYDROXIDE

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 33-189 hours: 96 mg/l, Fish LC ₅₀ , 45.5 hours: 96 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 40-240 hours: 48 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

Ecological information on ingredients.

TOLUENE

Persistence and degradability	Rapidly degradable
Stability (hydrolysis)	Not relevant.

(Benzyloxy)methanol

Biodegradation	Rapidly degradable Water - Degradation 100%: 18 days
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12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Radweld Plus

Partition coefficient No information available.

Ecological information on ingredients.

TOLUENE

Bioaccumulative potential BCF: ~ 90, *Leuciscus idus* (Golden orfe) Bioaccumulation is unlikely.

Partition coefficient log Pow: 2.73

(Benzyloxy)methanol

Partition coefficient log Pow: 0.3

SODIUM HYDROXIDE

Bioaccumulative potential No potential for bioaccumulation.

12.4. Mobility in soil

Mobility The product contains substances which are water-soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

TOLUENE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

(Benzyloxy)methanol

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

SODIUM HYDROXIDE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

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14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

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

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

Authorisations (Annex XIV Regulation 1907/2006) No specific authorisations are known for this product.

Restrictions (Annex XVII Regulation 1907/2006) No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Radweld Plus

Abbreviations and acronyms used in the safety data sheet	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>BOD: Biochemical Oxygen Demand.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC₅₀: 50% of maximal Effective Concentration.</p> <p>GHS: Globally Harmonized System.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>LC₅₀: Lethal Concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>SVHC: Substances of Very High Concern.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
Revision date	09/01/2021
Revision	5
Supersedes date	15/10/2020
SDS number	21021
Hazard statements in full	<p>H225 Highly flammable liquid and vapour.</p> <p>H226 Flammable liquid and vapour.</p> <p>H302 Harmful if swallowed.</p> <p>H304 May be fatal if swallowed and enters airways.</p> <p>H312 Harmful in contact with skin.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H361d Suspected of damaging the unborn child.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p>