# HAZMAX™ BOOTS

workMaster™ by RESPIREX

Petrochemical | Emergency Services | Industrial Chemicals | Hazardous Waste | Pharmaceuticals

A chemically protective anti-static boot with an integral steel toe cap and vulcanized rubber sole for superior slip resistance.

**EN 13832-3**
Chemical Protective Footwear

## Features

- Manufactured from our proprietary **Hazmax compound**, providing significantly better chemical resistance than PVC or PU materials
- **Chemically resistant** boot certified to **EN 13832-3:2018** (footwear protecting against chemicals)
- Conforms to **EN 943-1** (Chemical protective clothing) and certified to this standard as part of an appropriate Respirex gas-tight suit
- **Antistatic** - Electrical resistance meets the requirements of EN ISO 20345:2011 A (0.1MΩ to 1,000MΩ)
- Integral 200 Joule epoxy coated steel **toecap** and stainless steel penetration resistant **mid-sole**
- **Heat resistant sole** EN 20345:2011 **HRO**, 60 seconds at 300 °C
- **Cold insulation** to EN ISO 20345:2011 **CI**
- **Fuel and oil resistant** upper and sole
- **Vulcanized rubber sole** for improved slip resistance - 30% better than a conventional safety boot sole
- **Durable, cut-resistent** vulcanised rubber sole, significantly extends working life, even in harsh terrain
- Cleated outsole for **maximum grip** in wet and oily conditions (**SRC**)
- **Energy absorbing** tunnel system in heel to EN 20345:2011 **E**
- Ergonomic **cushioned insole** (removable & machine washable) for greater wearer comfort
- **Seamless** construction
- **Kick-off lug**
- Adjustable height
- Knitted nylon lining
- CE marked on the shaft with date and year of manufacture
- REACH Compliant

## Care

- Machine washable at up to 40°C
- Shelf life of over 10 years

## Certification

- **EN 13832-3: 2018** A,K,O,P,Q,R,T Chemical Protective Footwear
- **EN ISO 20345:2011** S5 SRC HRO CI FO Safety Footwear
- **PPE Regulation (EU) 2016/425** Personal Protective Equipment

## Options

- FPA Heat resistent version to EN 15090:2012 F3A Fire fighter boot standard and EN 943-2,
- Electro-Static Discharge (ESD) version to EN61340-5-1, suitable for applications such as pharmaceutical electro-protective areas

## Sizes

| UK | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EU | 35 | 36 | 37 | 39 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 49 | 50 |
| US | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

*Specifications, configurations and colours are subject to change without notice.*

: www.workmasterboots.com
: info@workmasterboots.com
: +44 (0)1737 778600

**WorkMaster™ is a division of Respirex International Limited**
Unit F, Kingsfield Business Centre, Philanthropic Road,
Redhill, Surrey, RH1 4DP, United Kingdom

# HAZMAX™ BOOTS - CHEMICAL PERMEATION

| CHEMICAL | CAS NO. | LETTER | METHOD | BREAK-THROUGH |
|---|---|---|---|---|
| Acetic acid (Glacial) | 64-19-7 | N | EN 16523 | > 12 Hours |
| **Acetone** | 67-64-1 | B | EN374-3 | > 2 Hours |
| Acetone Cyanohydrin | 75-86-5 | | EN374-3 | > 8 Hours |
| **Acetonitrile** | 75-05-08 | C | EN374-3 | > 6 Hours |
| Acrylic Acid | 79-10-7 | | EN374-3 | > 8 Hours |
| Acrylonitrile | 107-13-1 | | EN374-3 | > 2 Hours |
| Ammonia 33% | 1336-21-6 | O | EN 16523 | > 32 Hours |
| **Ammonia Gas** | 7664-41-7 | | EN374-3 | > 8 Hours |
| Ammonium Hydroxide Solution 5% free $NH_3$ | 1336-21-6 | | EN 16523 | > 32 Hours |
| Ammonium Pentadecafluoro-octanoate (30% in water) | 3825-26-1 | | EN374-3 | > 8 Hours |
| Aniline | 62-53-3 | | EN374-3 | > 8 Hours |
| Anti-knock(Tetraethyl lead 60% Dibromoethane 30%/ Dichloroethane 10% TEL-CB) | 78-00-2 / 106-03-4 / 107-06-2 | | EN374-3 | > 8 Hours |
| Aqueous Phenol 85% | 108-95-2 | | EN374-3 | > 8 Hours |
| Arsenic Acid | 7778-39-4 | | EN374-3 | > 8 Hours |
| Benzene | 71-43-2 | | EN374-3 | > 4 Hours |
| Benzyl Chloride | 100-44-7 | | EN374-3 | > 8 Hours |
| Bromine | 7726-95-6 | | EN374-3 | > 7 Hours |
| Buta-1,3diene Gas | 106-99-0 | | EN374-3 | > 3 Hours |
| Butyl Acetate | 123-86-4 | | EN374-3 | > 6 Hours |
| Cable oil | | | EN374-3 | > 8 Hours |
| Carbazole | 86-74-8 | | EN374-3 | > 8 Hours |
| **Carbon Disulphide** | 75-15-0 | E | EN374-3 | > 1 Hour |
| **Chlorine Gas** | 7782-50-5 | | EN374-3 | > 3 Hours |
| Chloroacetic Acid 85% | 79-11-8 | | EN 16523 | > 32 Hours |
| Chromic Acid | 1333-82-0 | | EN374-3 | > 8 Hours |
| Cyclohexylamine | 108-91-8 | | EN374-3 | > 8 Hours |
| **Dichloromethane** | 75-09-02 | D | EN374-3 | > 1 Hour |
| **Diethylamine** | 109-89-7 | G | EN374-3 | > 2 Hours |
| Diethylene Glycol dimethylether | 111-46-6 | | EN374-3 | > 8 Hours |
| Dimethyl Formamide | 68-12-2 | | EN374-3 | > 5 Hours |
| Epichlorohydrin | 106-89-8 | | EN374-3 | > 7 Hours |
| Ethanol (Ethyl Alcohol) | 64-17-5 | | EN374-3 | > 8 Hours |
| **Ethyl Acetate** | 141-78-6 | I | EN374-3 | > 4 Hours |
| Ethylene Glycol | 107-21-1 | | EN374-3 | > 8 Hours |
| Ethylene Dichloride | 107-06-2 | | EN374-3 | > 8 Hours |
| Ethylene Oxide | 75-21-8 | | EN374-3 | > 2 Hours |
| Ethylenediamine tetra-acetic acid tetrasodium salt (EDTA) 5% | 64-02-8 | | EN374-3 | > 8 Hours |
| Formaldehyde 37% | 79-11-8 | T | EN374-3 | > 8 Hours |
| Formic Acid 65% | 64-18-6 | | EN374-3 | > 8 Hours |
| **Heptane** | 142-82-5 | J | EN374-3 | > 8 Hours |
| Hexane | 110-54-3 | | EN374-3 | > 7 Hours |
| Hydrazine | 302-01-2 | | EN374-3 | > 8 Hours |
| Hydrazine 5% | 7803-57-8 | | EN374-3 | > 8 Hours |
| Hydrochloric Acid 37% | 7647-01-0 | | EN 16523 | > 32 Hours |
| Hydrofluoric Acid 48% | 7664-39-3 | S | EN374-3 | > 66 Hours |
| Hydrofluoric Acid 73% | 7664-39-3 | | EN374-3 | > 8 Hours |
| **Hydrogen Chloride Gas** | 7647-01-0 | | EN374-3 | > 8 Hours |
| Hydrogen Fluoride gas anhydrous | 7664-39-3 | | EN374-3 | > 1 Hour |
| Hydrogen Peroxide (10 volume (3%) solution) | 7722-84-1 | | EN374-3 | > 8 Hours |
| Hydrogen Peroxide 50% | 7722-84-1 | P | EN374-3 | > 8 Hours |

| CHEMICAL | CAS NO. | LETTER | METHOD | BREAK-THROUGH |
|---|---|---|---|---|
| Iso-butane | 75-28-5 | | EN374-3 | > 8 Hours |
| Iso-butane followed by Hyrdrofluoric acid 71-75% | 75-28-5 + 7664-39-3 | | EN374-3 | > 8 Hours |
| Iso-propanol (IPA) | 67-63-0 | | EN 16523 | > 32 Hours |
| m-Cresol | 108-39-4 | | EN374-3 | > 8 Hours |
| **Methanol** | 67-56-1 | A | EN374-3 | > 8 Hours |
| MethyL Ethyl Ketone (M.E.K) 2-Butanone | 78-93-3 | | EN374-3 | > 2 Hours |
| Methyl Iodide 99% | 74-88-4 | | EN374-3 | > 1.5 Hours |
| Methyl Methacrylate | 80-62-6 | | EN 369 | > 3 Hours |
| methyl-1,2-pyrolidone | 872-50-4 | | EN369 | > 8 Hours |
| Methylene Chloride Gas | 74-87-3 | | EN374-3 | > 1 Hour |
| Monochloroacetic acid | 79-11-8 | | EN374-3 | > 8 Hours |
| Naphalene | 91-20-3 | | EN374-3 | > 8 Hours |
| N,N-Dimethylaniline | 121-69-7 | | EN374-3 | > 8 Hours |
| N,N-dimetyl acetamide | 127-19-5 | | EN374-3 | > 8 Hours |
| Nitric Acid 50% | 7697-37-2 | M | EN 16523 | > 32 Hours |
| Nitric Acid 70% conc | 7697-37-2 | | EN 16523 | > 32 Hours |
| Nitric Acid Etchant 80/20 | 7697-37-2 | | EN374-3 | > 8 Hours |
| Nitro Benzene | 98-95-3 | | EN374-3 | > 3 Hours |
| Oleum 40% $SO_3$ | 8014-95-7 | | EN374-3 | > 8 Hours |
| Oxalic Acid saturated solution | 6153-56-6 | | EN374-3 | > 8 Hours |
| Phenol 50% in Methanol | 108-95-2/ 67-56-1 | | EN374-3 | > 8 Hours |
| Phosphoric acid 25% | 7664-38-2 | | EN 16523 | > 32 Hours |
| Phosphoric acid 75% | 7664-38-2 | | EN 16523 | > 32 Hours |
| Propylene 1,2 oxide | 75-56-9 | | EN374-3 | > 1 Hours |
| Red Fuming Nitric acid | 7697-37-2 | | EN374-3 | > 4 Hours |
| Sodium Cyanide 30wt% | 143-33-9 | | EN374-3 | > 8 Hours |
| **Sodium Hydroxide 40%** | 1310-73-2 | K | EN374-3 | > 8 Hours |
| Sodium Hypochlorite 16% | 7681-52-9 | R | EN374-3 | > 8 Hours |
| Styrene | 100-42-5 | | EN374-3 | > 8 Hours |
| **Sulphuric Acid 96%** | 7664-93-9 | L | EN374-3 | > 8 Hours |
| Tetrachlororethylene | 127-18-4 | | EN374-3 | > 3 Hours |
| Tetraethyl Lead (Octel Anti Knock) | 78-00-2 | | EN374-3 | > 8 Hours |
| **Tetrahydrofuran** | 109-99-9 | H | EN374-3 | > 3 Hours |
| **Toluene** | 108-88-3 | F | EN374-3 | > 4 Hours |
| Toluene 2,4 Diisocyanate | 584-84-9 | | EN374-3 | > 8 Hours |
| Trichloroethane | 71-55-6 | | EN374-3 | > 6 Hours |
| Trichloroethylene 1,1,2 | 79-01-6 | | EN374-3 | > 3 Hours |
| Triethanol-amine | 102-71-6 | | EN374-3 | > 8 Hours |
| Triethylene Glycol | 112-27-6 | | EN374-3 | > 8 Hours |
| Trigonox K-80 Cumyl hydroperoxide 80% / 20% Cumene | 80-15-9/ 98-82-8 | | EN 369 | > 8 Hours |
| Xylene | 1330-20-7 | | EN374-3 | > 4 Hours |

Chemicals in **bold** are the 15 standard test chemicals defined in EN943-2:2002

| WARFARE AGENT | CAS NO. | METHOD | BREAKTHROUGH TIME |
|---|---|---|---|
| Cyanogen Chloride | 506-77-4 | NFPA | No permeation detected |
| Lewisite | 541-25-3 | NFPA | No permeation detected |
| Mustard Gas | 505-60-2 | NFPA | No permeation detected |
| Saren Gas | 107-44-8 | NFPA | No permeation detected |
| VX | 50782-69-9 | Finabel 0.7.C. | > 48 Hours |
| GD (Soman) | 96-64-0 | Finabel 0.7.C. | > 24 Hours |

: www.workmasterboots.com
: info@workmasterboots.com
: +44 (0)1737 778600

WorkMaster™ is a division of Respirex International Limited
Unit F, Kingsfield Business Centre, Philanthropic Road,
Redhill, Surrey, RH1 4DP, United Kingdom