

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Maintenance Worker, Mechanic _____

Date: 10/16/00 _____

Department: Physical Plant, Service Garage _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Automobile/Heavy Equipment Mechanic Work | Flying particles, petroleum solvents and wastes | Safety glasses, chemical resistant gloves | Y |
| Locksmith Work | Flying particles | Safety glasses, face shield when using high speed tools | Y |
| Wood Working Work (Shop) | Noise, flying particles, lifting/carrying, rough surfaced materials | Hearing protection, safety glasses, face shield for high speed tools, puncture/cut resistant gloves, safety shoes, guards in place | Y |
| Metal Working Work (Shop) | Noise, flying particles, lifting/carrying, rough surfaced materials, metal working chemicals | Hearing protection, safety glasses, face shield for high speed tools, puncture/cut resistant gloves, safety shoes | Y |
| Painting (Shop) | Vapors, mists, solvents and chemical, flammables | Organic vapor respirator w/paint pre-filter, chemical resistant gloves | Y |
| Upholstery Work (Shop) | Solvents, glues, punctures | Chemical resistant gloves | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Maintenance Worker _____

Date: 10/16/00 _____

Department: Power Plant, Housing _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Power Plant Work | Hot surfaces, contact with surfaces (head), noise | Heat resistant gloves, hard hats, hearing protection | Y |
| Power Plant Laboratory Work | Corrosive chemicals, splashing chemicals | Safety glasses, chemical resistant gloves, apron. When pouring large quantities of chemicals, a face shield and goggles | Y |
| Tunnel Work | Contact (head), restricted access areas, heat stress, hot surfaces | Hard hat, light clothing, temperature resistant gloves, safety glasses | Y |
| Elevator Maintenance Work | Uncovered electrical switches and circuits, falling, moving machinery | Electrically insulated gloves (rated for energized voltage), fall protection, cut/puncture resistant gloves | Y |
| Confined Space Work | Hazardous atmosphere, restricted exit, other depending on nature of the space | Determine appropriate personal protective equipment in accordance with the Confined Space Entry Program | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Maintenance Worker _____

Date: 10/16/00 _____

Department: Physical Plant, Housing, Power Plant _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Arc Welding or Cutting | Electric shock, metal sparks, molten and hot metal, UV, IR and visible light, falling, dropping, rolling and sharp objects | Insulating mats or blankets, insulated/heat and puncture/cut resistant gloves, safety shoes, hard hat, safety glasses, welding shield or helmet with appropriate eye shade. | Y |
| Oxy-fuel Welding or Cutting | Metal sparks, molten and hot metal, UV, IR and visible light, falling, dropping, rolling and sharp objects | Heat and puncture/cut resistant gloves, safety shoes, hard hat, safety glasses, welding shield or helmet with appropriate eye shade. | Y |
| Torch Brazing | Metal sparks, molten and hot metal, UV, IR and visible light, falling, dropping, rolling and sharp objects | Heat and puncture/cut resistant gloves, safety shoes, hard hat, filter lens spectacles or goggles, or safety glasses and hand shield, with appropriate eye shade (at least #3). | Y |
| Torch Soldering | Molten and hot metal, UV, IR and visible light, falling, dropping, rolling and sharp objects | Heat and puncture/cut resistant gloves, flame resistant clothing, safety shoes, hard hat, filter lens spectacles or goggles, or safety glasses and hand shield, with appropriate eye shade (at least #2). | Y |
| Metal Grinding or Chipping | Metal sparks and chips, falling, dropping, rolling and sharp objects | Heat and puncture/cut resistant gloves, typical work clothing, safety shoes, safety glasses, full face shield. | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Maintenance Worker _____

Date: 10/16/00 _____

Department: Physical Plant, Power Plant, Housing _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Carpentry Work (Construction Site) | Flying particles, falling, falling objects, cuts/punctures, lifting/carrying | Safety glasses, safety shoes, hard hat, cut/puncture resistant gloves, fall protection when working at elevations. When using high speed power tools, a face shield. | Y |
| Masonry Work (Construction Site) | Flying particles, falling, falling objects, cuts/puncture, lifting/carrying | Safety glasses, safety shoes, hard hat, cut/puncture resistant gloves, fall protection when working at elevations. When using high speed power tools, a face shield. | Y |
| Laborer Work (Construction Site) | Flying particles, falling, falling objects, cuts/puncture, lifting/carrying | Safety glasses, safety shoes, hard hat, cut/puncture resistant gloves, fall protection when working at elevations. When using high speed power tools, a face shield. | Y |
| Painting Work (Construction Site) | Flying particles, falling, falling objects, cuts/puncture, lifting/carrying, cleaning solvents | Safety glasses, safety shoes, hard hat, cut/puncture resistant gloves, fall protection when working at elevations. When using high speed power tools, a face shield. | Y |
| Roofing Work | Falling, hot surfaces, heat and cold stress, sealing chemicals, solvents, lifting/carrying | Safety glasses, safety shoes, fall protection, heat resistant gloves, chemical resistant gloves. Temperature stress protective clothing, depending on weather conditions. | Y |
| Sheet Metal Work (Construction Site) | Flying particles, lifting/carrying, rough surfaced materials | Safety glasses, safety shoes, puncture/cut resistant gloves. When using high speed power tools, a face shield. | Y |
| Low Voltage Electrified Equipment Work | Electric shock, falling | Electrically insulated gloves (rated for voltage of energized equipment), insulated blankets or mats, non-synthetic work clothing, fall protection | Y |

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|-----------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| | | mats, non-synthetic work clothing, fall protection when working at elevations. | |
| High Voltage Electrified Equipment Work | Electric shock, arc, explosion and burns, falling, confined spaces, vehicles in traffic areas | Hard hat, safety glasses, face shield, insulated gloves (rated for voltage of energized equipment), insulated blankets or mats, non-synthetic work clothes, safety shoes, fall protection when working at elevations, reflective clothing when working near traffic. | Y |

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Maintenance Worker _____

Date: 10/16/00 _____

Department: Physical Plant, Housing _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Air Conditioning/Refrigeration Work | Water treatment chemicals | Chemical resistant gloves, safety glasses. When using large quantities of chemicals, a face shield & goggles | Y |
| Plumbing Work | Hot surfaces, rough surfaced materials, sewage | Heat resistant gloves, safety glasses, cut/puncture resistant gloves, rubber gloves | Y |
| General Maintenance Work | Rough surfaced materials, lifting/carrying | Cut/puncture resistant gloves, safety glasses, safety shoes | Y |
| Custodial Work | Cleaning chemicals, splashes | Chemical resistant gloves, safety glasses. When pouring large quantities of chemicals, a face shield & goggles. | Y |
| Refuse Work | Noise, sharp objects, garbage | Hearing protection, safety glasses, cut/puncture resistant gloves, rubber gloves, safety shoes | Y |
| Grounds Keeping Work | Pesticides, noise, flying particles, heat stress, insect and plants toxins | Hearing protection, safety glasses, protection from pesticides according to label, application, and reentry requirements, skin protection from insects and plants, safety shoes, gloves | Y |
| Pest Management Work | Pesticides, animals and plants | Protection from pesticides according to label, application, and reentry requirements, skin protection from animals and plants, safety glasses | Y |
| Tree Trimming work | Pesticides, falling, noise, flying particles, heat stress, insect and plant toxins | Fall protection, hearing protection, protection from pesticides according to label, application, and reentry requirements, skin protection from | Y |

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| | plant toxins | and reentry requirements, skin protection from insects and plants, safety shoes, safety glasses, gloves | |
| Moving Work | Lifting/carrying | Safety shoes | Y |

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Maintenance Worker _____

Date: 10/16/00 _____

Department: Physical Plant _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Plumbing Work | Hot surfaces, rough surfaced materials, sewage | Heat resistant gloves, cut/puncture resistant gloves, rubber gloves, safety glasses | Y |
| General Maintenance Work | Rough surfaced materials, lifting/carrying | Cut/puncture resistant gloves, safety shoes, safety glasses | Y |
| Machine Tools (drills, grinders and saws) | Flying particles | Safety glasses | Y |
| Arc Welding or Cutting | Electric shock, metal sparks, molten and hot metal, UV, IR and visible light, falling, dropping, rolling and sharp objects | Insulating mats or blankets, insulated/heat and puncture/cut resistant gloves, safety shoes, hard hat, safety glasses, welding shield or helmet with appropriate eye shade | Y |
| Moving Work | Lifting/carrying | Safety shoes, gloves | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Scenic Carpenter _____

Date: 10/16/00 _____

Department: Theatre _____

Supervisor: _____

Location / Worksite: Auditorium, Wharton _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------|
| Operating saws and other power tools | Eye hazard, cuts from blade | Safety glasses with side shields (hearing protection), guard in place | Y |
| Operating metal saw | Eye hazard and skin hazard | Safety glasses with side shields and face shield, Long cuffed leather gloves | Y |
| Welding | Eye hazard, Hand and skin hazard | Welding helmet with appropriate shade protection, Long cuffed leather gloves | Y |
| Moving wood and metal pieces, lifting | Foot hazard, dropping objects and piercing objects, wood splinter, pinch | Leather work shoe/boot with thick sole, gloves | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Grounds Keeper _____

Date: 10/16/00 _____

Department: Housing, Grounds, Physical Plant _____

Supervisor: _____

Location / Worksite: Campus, Stadium _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------|-------------------------|
| Use of powered ground keeping equipment; lawn mowers, weed whips, chainsaw etc | Skin and eye damage | Safety glasses, long sleeved shirts, long pants, cloth gloves | Y |
| Conducting any type of activities on an active fairway. Conducting activities with the potential for materials to be dropped onto head. | Impact | Hard hat | Y |
| Trash Clean up | Dust, cuts, noise | Mask, gloves, ear protection | Y |
| Use of Pruning devices | Cuts | Gloves | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Laboratory Worker _____

Date: 09/17/03 _____

Department: All _____

Supervisor: _____

Location / Worksite: Research Buildings _____

Analysis: Dave Erickson _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Working with low hazard chemicals when a low probability of splash exists | Skin and eye irritation | Safety glasses, Light chemical resistant gloves, Lab coat, closed shoe, pants | Y |
| Working with smaller amounts (<1 liter) of corrosive or injurious chemicals where a reasonable probability of splash exists | Skin and eye damage | Chemical splash goggles, Light chemical resistant gloves, Lab coat, closed shoe, pants | |
| Working with larger quantities of corrosive liquids (> 1 liter), or toxic corrosives | Large surface area skin and eye damage, Poisoning, or Great potential for eye and skin damage | Chemical splash goggles & face shield, Appropriate heavy resistant gloves Lab coat, closed shoes, pants and chemical resistant apron | Y |
| Working with small volumes of organic solvents (< 1 liter) | Skin and eye damage Slight poisoning potential through skin absorption | Safety glasses, goggles if splash hazard exists, Light chemical resistant gloves Lab coat, closed shoe, pants | Y |
| Working with large volumes of organic solvents (> 1 liter), highly toxic organic solvents or work which may create a splash hazard | Major skin and eye damage Potential poisoning through skin absorption | Safety goggles & face shield Appropriate heavy resistant gloves Above clothes and chemical resistant apron | Y |
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Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Laboratory Worker _____

Date: 09/17/03 _____

Department: All _____

Supervisor: _____

Location / Worksite: Research Buildings _____

Analysis: Dave Erickson _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Working with small volumes of human blood, body fluids or other potentially infectious materials (OPIM) as defined in the MSU Bloodborne Pathogen Exposure Control Plan | Potentially infected with infectious disease (BBP) Potential spread of infectious disease | Safety glasses Disposable nitrile gloves Lab coat, closed shoe, pants | Y |
| Working with large volumes of human blood, body fluids or other other potentially infectious materials and/or splash hazards | Increase potential of becoming infected with infectious disease (BBP) Increased potential spread of infectious disease | Safety goggles & face shield Nitrile gloves Lab coat, closed shoe, pants Coveralls and foot covers may be necessary | Y |
| Working with hazardous powders | Potential skin and eye damage, Potential for poisoning through skin absorption | Safety glasses Goggles for large quantities Light chemical resistant gloves Lab coat, closed shoe, pants | Y |
| Working with acutely toxic hazardous powders | Great potential skin and eye damage Great potential for poisoning through skin absorption | Safety goggles Appropriate chemical resistant gloves Lab coat, closed shoe, pants Coveralls and booties if necessary | Y |
| Working with dispersible radioactive materials | Potential tissue damage Potential spread of radioactive contamination | Appropriate eye protection, Disposable nitrile gloves Lab coat, closed shoe, pants | Y |
| Working with radioactive chemicals (corrosives, solvents, toxics, etc.) | See appropriate chemical section above Potential tissue damage Potential spread of radioactive | Safety glasses, goggles for splash hazard Light chemical resistant gloves Lab coat, closed shoe, pants Use PPE for applicable tasks above | Y |

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|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---|
| | contamination | | |
| Working with radioactive human blood, body fluids or other potentially infectious materials | Potential tissue damage Potential spread of radioactive contamination Potential exposure to OPIM | Safety glasses, goggles for splash hazard Disposable nitrile gloves Lab coat, closed shoe, pants | Y |
| Working with sealed radioactive sources | Damaged or leaking source may spread contamination, Some leaking sources may pose an external dose risk. | Safety glasses, light gloves, shield may be needed for high energy sources | Y |

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Laboratory Worker _____

Date: 09/17/03 _____

Department: All _____

Supervisor: _____

Location / Worksite: Research Buildings _____

Analysis: Dave Erickson _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Working with cryogenic liquids | Major skin, tissue and eye damage | Chemical splash goggle and face shield Heavy insulated gloves Lab coat, closed shoe, pants | Y |
| Working with very cold materials and equipment (freezers, dry ice) | Frostbite Hypothermia | Safety glasses Insulated gloves and warm clothing Lab coat, closed shoe, pants | Y |
| Working with hot liquids, equipment and/or open flames (autoclave, bunsen burner, waterbath, oil bath) | Skin damage Eye damage | Safety glasses or goggles for large volumes or splash hazards Insulated gloves Lab coat, closed shoe, pants | Y |
| Working with large volumes of hot, cold, or cryogenic liquids | Major skin and eye damage Frozen or burned body tissues | Safety glasses or goggles and face shield Heavy insulated gloves Above clothes and apron or coveralls | Y |
| Working with Ultraviolet Radiation | Conjunctivitis Corneal eye damage Erythema | UV face shield and goggles Lab coat, closed shoe, pants | Y |
| Working with LASER radiation | Retinal eye damage Skin damage | Appropriate shaded goggles with optical density based on individual beam parameters Lab coat, closed shoe, pants No jewelry/reflective items allowed | Y |

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Laboratory Worker _____

Date: 09/17/03 _____

Department: All _____

Supervisor: _____

Location / Worksite: Research Buildings _____

Analysis: Dave Erickson _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------|-------------------------|
| Working with Infrared emitting equipment (glass blowing) | Cataracts and flash burns to cornea | Appropriate shaded goggles, Lab coat, closed shoe, pants | Y |
| Arc/TIG welding | Conjunctivitis Corneal eye damage Erythema | Appropriate shaded goggles Working gloves | Y |
| Instrument or equipment repair/service | Eye damage from foreign objects | Safety glasses No loose clothing or jewelry | Y |
| Metal working/Woodworking shop | Eye damage from foreign objects | Safety glasses No loose clothing or jewelry | Y |
| Glassware washing | Skin lacerations | Safety glasses, Heavy rubber gloves Lab coat, closed shoe, pants | Y |
| Working in Industrial lab with potential injury from falling equipment or tools (ex. Earthquake lab, Structural Engineering lab, etc.) | Head injury, foot injury | Hard-hat Steel toe boots | Y |
| Spill clean-up | See potential hazards for applicable task section | See applicable individual task section | Y |
| Changing Cryostat knife blade | Skin lacerations Potential infection by BBP | Skin lacerations Potential infection by BBP | Y |

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Farm Worker _____

Date: 10/02/00 _____

Department: Farms / Land Management _____

Supervisor: _____

Location / Worksite: State Wide _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|--------------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------|-------------------------|
| Farm Worker | Falls From machinery | Training on safe mount/dismount | No |
| Farm Worker | Powered shafts/belts | Disengage power for routine maintenance, gloves, lockout tag for extensive repair | Yes |
| Farm Worker | Sun burn, heat stress, frost bite | Training, proper clothing, sunscreen | Yes |
| Transport of equipment on highway/roads | Traffic crash | Traning on safe driving, Slow Moving Vehicle signs on equipment | No |
| Use of forks, shovels | Foot injury | Leather shoes or boots | Yes |
| Farm Worker | Rolling equipment could crush body/limbs | Training, park or wheel chocks | No |
| Mixing/application of Chemicals/Herbicides | Splash to face | Gloves, goggles | Yes |
| | | | |

Personal Protective Equipment Hazard Assessment Certification

MICHIGAN STATE
UNIVERSITY

Job Title: Tree Trimmer _____

Date: 10-2-00 _____

Department: Grounds _____

Supervisor: _____

Location / Worksite: _____

Analysis: Dan Beachnau _____

Employee Name(s): _____

Signature: _____

| Tasks, Job Classification or Workstation | Potential Hazard | Type of PPE Required | PPE Required (Yes / No) |
|------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------|----------------------------|
| Operating hand saw, chainsaw and wood chipper | Impact | Impact approved safety glasses or goggles and faceshield | Y |
| Trimming activities in, under, or around trees | Falling or rolling objects, splinters, cuts, abrasions | Hard had and safety boot, leather palm gloves | Y |
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