



All WD-40 uses for On The Job

- Stops squeaks on shopping cart wheels
- Protects mills, lathes, shears, and grinders from rust and corrosion
- Aids in the removal of furnace blower wheels
- Allows free movement of rusted equipment when sprayed on tight areas or
- Apply on medicine cabinet closure to prevent sticking
- Brings back paint on faded house shutters and makes them look new
- Clean and polish Alaskan Oil Pipeline at visitor viewing
- Cleans adhesive tape residue on audio/visual cables
- Cleans airbrushes
- Cleans and lubricates commercial coin rollers/counters
- Cleans and prevents rust on oil tank exterior
- Cleans and protects areas affected by bi-metal conditions and disassembly of machinery
- Cleans and protects cargo release systems
- Cleans and protects forklift brake hardware
- Cleans and protects forklifts from rust
- Cleans and protects handcuffs
- Cleans and protects heavy-duty cutting heads
- Cleans and protects jaws on electric drill chuck
- Cleans and protects jet compressor blades
- Cleans and protects manicuring implements at beauty shop
- Cleans and protects medicine door latches
- Cleans and protects moving parts of old printing presses
- Cleans and protects outdoor popcorn stands
- Cleans and protects reamers
- Cleans and protects safe deposit boxes
- Cleans and protects sewer cleaning cables
- Cleans and protects wire mesh black bay boxes
- Cleans and shines the exterior of stainless steel frozen yogurt machines
- Cleans axe blades
- Cleans ballast oil from tile floors (be sure to wipe floor clean after using WD-40)
- Cleans bed frame
- Cleans bed of metal lathe
- Cleans bed pans
- Cleans blades on box cutters
- Cleans chair wheels
- Cleans clipper blades in dog grooming shop
- Cleans clogged Inkjet nozzle
- Cleans concrete from shovels
- Cleans debris from vise-grip
- Cleans dirty power cords
- Cleans engraving machines
- Cleans gum from boots
- Cleans gum from parking meter coin slot
- Cleans gunk from chain saws
- Cleans gunk from phone buttons
- Cleans gunk from pricing guns
- Cleans gunk from safety glasses/goggles
- Cleans heavy lube from bull gears on Drag line
- Cleans interiors of soda machines
- Cleans jointer and planer blades before and after sharpening
- Cleans lock nuts around gate valves
- Cleans magazines for an AK-47
- Cleans magnifying glass handle
- Cleans mastic off floor tiles (be sure to wipe floor clean after using WD-40)
- Cleans mechanical hoist gears
- Cleans microphone cables after rental
- Cleans newspaper ink from tables
- Cleans overhead projectors
- Cleans plastic desk protectors
- Cleans Plexiglass
- Cleans printer toner from unwanted places
- Cleans pushbutton switches on hand controls for patient hospital beds
- Cleans reflectors on fluorescent lights
- Cleans resin encrusted table saw blades

- Cleans roofing tar off circular saw blades
- Cleans rust on conveyors
- Cleans rusty saws
- Cleans salt-impregnated ice from the soles of work boots
- Cleans sawdust from wood working tools
- Cleans scum from rubber gloves
- Cleans shoe repair equipment
- Cleans spray paint nozzles
- Cleans stickers off postal mail sorting equipment belt rollers
- Cleans tape and glue left from microscope stand and equipment
- Cleans vending machine motors
- Cleans welding dust
- Cleans window caulking
- Coat dental instruments before putting in autoclave to prevent excessive oxidation
- Coat door knobs prior to painting to keep paint from sticking
- Coat drill press spindle for rust protection
- Contractors use bottom of can to draw perfect circles while in the field. Use cap for smaller circles
- Displaces moisture from electrical connections and protects from corrosion
- Dissolves butyl caulk
- Dissolves grease
- Dissolves rust from rusty bolts
- Drives gunk from bearings seized by fertilizer
- Drives moisture away from push buttons that can become oxidized
- Drives moisture from helicopter quadrants
- Drives moisture from seismic cable connectors
- Drives moisture from spark plugs on tanks
- Drives moisture from telephone wire connections in network interface box
- Drives moisture out of electric generators
- Eases removal of concrete grout from test cubes used in construction
- Eases removal of old ID stickers from computer cases
- Eases removal of solidified spitballs
- Eliminates squeaks from locks
- Frees locking nuts on lawn mower blades
- Frees locking pins on tiller
- Frees stuck conveyor belt rollers
- Frees stuck escape slides located at bottom of entry doors on planes
- Frees stuck lock on lock boxes
- Frees stuck locks on lock boxes
- Frees up extendable paint roller poles that get clogged with paint
- Frees up hot tar pipes
- Frees up mechanisms in ergo chairs
- Helps detect cracks in welds
- Helps dissolve rust from apple bagging machines
- Helps dissolve rust from corn sheller
- Helps dissolve rust from fork lift parts
- Helps dissolve rust from hog equipment
- Helps dissolve rust from pruning shears
- Helps hide scratches on plastic safety goggles
- Helps keeps paint on farm machinery shiny and free from cracks
- Helps lubricate gate valve on a house
- Helps maintain waterproof seal in telephone splice cases
- Helps protect sluice boxes
- Helps provide dust-free surface when roofing
- Helps reclaim rusted plumbing snake
- Helps remove a chair base from a press fit hydraulic cylinder
- Helps remove gunk from electrical contacts
- Helps remove hands from stuck pipe
- Helps remove oxidation from bronze grave markers
- Helps remove rust from calipers
- Helps remove shoe polish stains from socks
- Helps start wet engines
- Hides scratches on metal elevator doors
- Hides small scratches on woodwork
- Increases life of high-speed dental hand pieces
- Keeps adhesive from building up on face cut dies
- Keeps circumference rulers from rusting
- Keeps construction lifts clean from stucco job
- Keeps grass from sticking to lawnmower blades
- Keeps knobs on heart monitor defibrillators clean
- Keeps lock down plate clean on oil wells
- Keeps metal filing tools from filling with lead or zinc
- Keeps missile silo doors swinging freely
- Keeps office chair wheels rolling smoothly
- Keeps paint from sticking to glass

- Keeps paint from sticking to paint brushes
- Keeps prison cell doors from squeaking
- Keeps sewer machine wheels turning smoothly
- Keeps snake and reptile skins pliable in taxidermy
- Keeps table saw arbor from gumming up and sticking
- Keeps tape from sticking to drywall tools
- Loosens drive chains on hay balers
- Loosens frozen boat parts
- Loosens frozen infuser pumps from poles in hospitals
- Loosens gum stuck to bottom of tables
- Loosens gummy residue from carbide tipped blades
- Loosens height adjuster on lawnmower wheels
- Loosens interior plumbing devices
- Loosens knobs on adjustable drafting table
- Loosens locking mechanisms on ladders
- Loosens lugnuts on boat trailers
- Loosens pulleys on cable-operated bulldozers
- Loosens rusted bolts on radio antenna clamps
- Loosens rusted monkey fists on boat
- Loosens rusted or stuck plumbing joints
- Loosens rusted screws on board ships
- Loosens rusty hinges on mail carts
- Loosens rusty security gate hinges
- Loosens screws in shower valves to enable faceplate removal
- Loosens strapping tape after a hurricane
- Loosens stuck buttons on adding machines
- Loosens stuck locks on parking meters
- Loosens threaded joint on water pumps
- Loosens tooling on tablet making machine
- Loosens up the crank on old hospital stretchers
- Loosens valve bolts on tiller units
- Lubricate guide rollers on digger derrick
- Lubricate O-rings when rebuilding oil pumps
- Lubricate wheels of paper shredders, to prevent paper from jamming
- Lubricates adjusting mechanism on office chairs
- Lubricates adjusting mechanisms on office chairs
- Lubricates adjustment knob on overhead projector
- Lubricates aluminum extrusion when cutting for length
- Lubricates and cleans tension idlers on theater rigging system
- Lubricates and protects antique weapons for historical reenactments
- Lubricates and protects bucksaw blades
- Lubricates and protects electric stapler
- Lubricates and protects power tools such as drills, nail guns and staple guns
- Lubricates antenna parts on tall broadcast towers
- Lubricates any moveable parts, especially in the fabrication phase
- Lubricates arm of post-office letter sorter
- Lubricates automatic envelope making machine
- Lubricates axle on rotating shoe polisher
- Lubricates ball bearings in chairs
- Lubricates barn door locks
- Lubricates barn door runners
- Lubricates battery handles on laryngoscopes
- Lubricates bearings of radar antenna on lobster boats
- Lubricates bone joints of skeletons in laboratories
- Lubricates boxcar doors on rail cars
- Lubricates bulk loading caulking gun
- Lubricates C-Clamps on stage lighting instruments
- Lubricates cargo straps on semi trucks
- Lubricates cash drawer locks
- Lubricates casters on antique desks
- Lubricates casters on mobile pizza making table
- Lubricates casters on power tool stands
- Lubricates casters on Rubbermaid utility carts
- Lubricates caulk guns
- Lubricates caused by new leather work boots
- Lubricates chain-link conveyor belt in pizza ovens
- Lubricates child safety seat latches on shopping carts
- Lubricates cipher locks
- Lubricates cogs on rollers of x-ray film processing machine
- Lubricates computer cart wheels
- Lubricates crank mechanism on pencil sharpener
- Lubricates curtain tracks in hospital rooms
- Lubricates date stamps
- Lubricates desk locks

- Lubricates diamond cutting wheel on glass cutter
- Lubricates dolly wheels
- Lubricates draw heads on railroad boxcars
- Lubricates drive system of dollar bill changers
- Lubricates dumpster wheels
- Lubricates during lathe turning operations
- Lubricates electric pencil sharpeners
- Lubricates emergency gear handle on Piper Aztec
- Lubricates fiber optic cable when routing through narrow ducts
- Lubricates file cabinet hardware
- Lubricates fingers stuck in hole
- Lubricates flagpole pulleys
- Lubricates flashlight switches
- Lubricates foot feeder on tractor
- Lubricates framing guns
- Lubricates gas chromatography motors
- Lubricates gate locks
- Lubricates gears on earth-moving caterpillar tractor
- Lubricates gears on earth-moving tractor
- Lubricates gears on light bars on police cars to keep lights spinning freely
- Lubricates gears on paper shredder
- Lubricates grinder bit on stained glass grinder
- Lubricates gripper bar on printing presses to allow sheets to release properly
- Lubricates gumball machine mechanisms
- Lubricates gurneys
- Lubricates gyro compasses
- Lubricates hacksaw blades for cutting metal
- Lubricates handles on three-hole punch and prevents handles from sticking
- Lubricates hanging IV pole stand wheels
- Lubricates head stops on litho presses
- Lubricates heavy-duty machine screws
- Lubricates hell hole micro switches
- Lubricates hell hole roller switches
- Lubricates hinge bearings on ships
- Lubricates hinge on pruning shears
- Lubricates hinges, latches and locks on trucks
- Lubricates hole punches
- Lubricates hydraulic barber chairs
- Lubricates inside of orthopedic shoes for easy removal of cast/mold
- Lubricates interchangeable numbers on gas station price placards
- Lubricates jet engines to ease overhaul and disassembly
- Lubricates joints of folding sawhorses
- Lubricates kiln lid hinges
- Lubricates large mixing bowls in commercial mixers
- Lubricates latches on doors, gates, toolboxes and ladders
- Lubricates lead snippers
- Lubricates legs on HETs (Heavy Equipment Transporter) for easy sliding
- Lubricates lever on razor scraper
- Lubricates lift arms on fork lifts
- Lubricates lock cylinders during repair
- Lubricates lock shafts to check for bad bearings
- Lubricates locking mechanisms on video drop slots
- Lubricates locks on doors, gates, toolboxes and ladders
- Lubricates locks on lawnmower control cables
- Lubricates log splitters
- Lubricates Mayo stands for smooth up and down movement during surgery
- Lubricates mechanical pens and pencils
- Lubricates metal before running through a roll-former
- Lubricates metal joints on bed frames
- Lubricates micrometers on precision tools
- Lubricates miter saw blade
- Lubricates mop bucket casters
- Lubricates mouse trap machinery
- Lubricates moveable parts of snowplow harnesses
- Lubricates moving parts on combines
- Lubricates moving parts on farming equipment
- Lubricates moving parts on tractors
- Lubricates nails to ease disassembly of pallets
- Lubricates notebook binders
- Lubricates O-rings prior to assembly
- Lubricates outflow valves
- Lubricates overhead projector cart wheels
- Lubricates paper cutter blades
- Lubricates pencil sharpener gears

- Lubricates piano hinges on tool box
- Lubricates power actuated guns
- Lubricates power injecting device strung from the ceiling in Cardiac Catheterization Lab
- Lubricates precision grinding saws
- Lubricates pressure hose on gold dredge
- Lubricates pressure hose on silver dredge
- Lubricates primacord and the port plugs on perforating guns
- Lubricates pull starter on generator
- Lubricates reciprocating saw blades
- Lubricates rings on ring binders
- Lubricates rivet gun mechanisms
- Lubricates rollers on copper tubing cutter
- Lubricates rollers on metal cash register drawers
- Lubricates rollers on radial arm saw
- Lubricates rolodex bearings
- Lubricates rooftop evaporative coolers
- Lubricates rotating coffee shop chairs
- Lubricates rotorhead of helicopters to stop elastomeric dampers from squeaking
- Lubricates rototiller axle
- Lubricates rototiller blades
- Lubricates router collets
- Lubricates rubber wheels
- Lubricates rusted fasteners
- Lubricates rusted screws
- Lubricates school locker latches
- Lubricates sheet metal cutters and channel locks
- Lubricates shifting links on bulldozers
- Lubricates side guides on litho presses
- Lubricates slide for box cutter
- Lubricates sliding doors on passenger trains
- Lubricates sliding power saw guides
- Lubricates sliding rollers on diamond blade tile saw
- Lubricates socket wrench
- Lubricates spinning magazine racks
- Lubricates spring-loaded office chairs
- Lubricates squeaky fare box levers on city buses
- Lubricates staple guns
- Lubricates steering linkages on tractor
- Lubricates stethoscope
- Lubricates sticky brakes on a Genie lift
- Lubricates sticky mechanisms on old typewriters
- Lubricates stuck buttons on push-button calculators
- Lubricates stuck screws on overhead projectors
- Lubricates stuck temperature regulators on refrigerators
- Lubricates stuck vending machine knobs
- Lubricates stuck washers
- Lubricates swivels on 35-ton grove crane
- Lubricates table saw casters
- Lubricates table saw runners
- Lubricates tank ignition system
- Lubricates tape measures
- Lubricates tills on cash registers
- Lubricates tilt mechanism on swivel chair
- Lubricates track adjusting screws
- Lubricates transcription machines
- Lubricates trunk latches
- Lubricates tuning mechanism on scanners
- Lubricates turnbuckles
- Lubricates valves on fire trucks
- Lubricates vending machine locks
- Lubricates vice handles
- Lubricates vise
- Lubricates wheel housings on ships
- Lubricates wheels of pallet jack
- Lubricates wheels of rolling book bags
- Lubricates wood shapers
- Lubricates worm gears in chicken house on poultry farm
- Makes Tygon flexible tubing fit over glass tubing with approximately the same diameter
- Penetrates and frees stuck buttons on telephones
- Penetrates and frees up stuck packing glands on water valves
- Penetrates and loosens screws on furniture clamps
- Penetrates and loosens stuck screws on bathtub knobs
- Penetrates levers on office chair for easy adjustments
- Penetrates rusted parts

- Penetrates stuck bolts on cultivator shovels
- Penetrates, loosens, and helps remove rusted and stuck parts, including screws, nuts, bolts and plumbing joints
- Prevents breakage of contact pins and support when changing fluorescent light bulbs
- Prevents corrosion of underwater connectors on Remote Operated Vehicle (ROV)
- Prevents corrosion on console panel switches
- Prevents corrosion on helicopter blades
- Prevents corrosion on radar gear
- Prevents corrosion on wing interior
- Prevents rust on clamps
- Prevents rust on floor sanding machines
- Prevents rust on hand saws
- Prevents rust on seam areas on wings
- Prevents rust on ship seam areas
- Prevents rust on testing bars
- Prevents rust on transmission gears when coated after etching
- Prevents rust when sprayed liberally on wet tools
- Prevents the hydraulic unit on a BO105 helicopter from malfunctioning; Apply WD-40 every morning during daily inspection
- Prevents "pits" on stainless steel tables (used to collect/pack fish) from rusting
- Protects against corrosion in retractable wheel wells
- Protects against corrosion on high tension circuits
- Protects and maintains armor suits
- Protects and polishes bronze grave markers
- Protects archeological tools
- Protects bandsaw bearings
- Protects chains from getting rusty
- Protects coaxial fittings on modem
- Protects combination locks
- Protects drill presses from rust and corrosion when sprayed on after each use
- Protects drives on wire welders
- Protects drywall tools
- Protects fertilizer distributors
- Protects fittings on boat moorings
- Protects hammers from corrosion
- Protects helicopter M/R blades from rust
- Protects lawnmower blades
- Protects machining parts from rust and corrosion when sprayed on after each use
- Protects metal water meters from rust and corrosion
- Protects motors coupled to pumps to prevent faulty packing glands
- Protects rhinos (a digging tool for fighting forest fires) from rust
- Protects steel doctor blades on flexographic printing presses
- Protects tools, garden implements and lawnmower blades from rust
- Protects vintage steam equipment on paddlewheel steam boats
- Provides protective coating for Teflon heating strips
- Reconditions brass tips on crop field sprayer nozzles
- Reconditions old mining tools hauled in from desert gold mines
- Reconditions rollers in fax machines
- Rehydrates paintbrush bristles
- Relieves squeaks on crystallographic grease machine
- Removes adhesive residue
- Removes asphalt from overshoes
- Removes asphalt from tools
- Removes asphalt from trucks
- Removes buildup from milking machine pulsator
- Removes cement from metal
- Removes chewing gum from lunch trays
- Removes coffee stains from leather
- Removes Cosmeline coatings from milling machines and other shop tools
- Removes crater grease from rail lines
- Removes crayon from Formica®
- Removes crud from hoof trimmers
- Removes debris and lubricates automatic poultry feeders
- Removes debris and protects fertilizer spreader after use
- Removes debris from hoof trimming chute
- Removes debris from rototiller bits
- Removes debris from vise-grip and channel locks
- Removes deposit buildup on sand belts
- Removes duct tape
- Removes evidence tape glue from evidence tape after evidence has been processed
- Removes fingerprints from glossy covers of magazines and book covers
- Removes gaff tape
- Removes glue from carpet
- Removes glue from copper foil during stained glass production
- Removes glue from paneling
- Removes glue residue from old paneling

- Removes grease and grime and protects on-board machine and hand tools
- Removes grease caked onto the engine block and its compartment
- Removes grease from lunch boxes
- Removes gum from parking meter coin slot
- Removes gunk and compressor oil off pistons in solenoids
- Removes gunk and debris from Thermo King refrigeration units
- Removes gunk and lubricates the trigger of gas pumps
- Removes gunk and protects cables and connectors
- Removes gunk and protects gauges
- Removes gunk and protects the plates of injection molding machines on windshield washer nozzles
- Removes gunk and protects tracks on tracked vehicles
- Removes gunk from bookbags
- Removes gunk from chain saws
- Removes gunk from cooler doors
- Removes gunk from electrical contacts
- Removes gunk from hydraulic tips on quick connectors on tractors
- Removes gunk from lace hoops on work boots
- Removes gunk from sealing equipment in GM assembly plant
- Removes gunk when replacing old faucets
- Removes ink from rollers in printing press
- Removes ink stains from leather
- Removes marks-a-lot ink from most items
- Removes oil from hands
- Removes oil stains from nylon
- Removes paint from dungarees
- Removes paint from shoes
- Removes paint from windows
- Removes permanent marker from dry erase boards
- Removes petroleum stains from clothing
- Removes pine pitch from table saw blades
- Removes roofing tar from circular saw blades
- Removes roofing tar from shoes
- Removes rust from dog tags
- Removes rust from files
- Removes rust from metal table legs
- Removes rust from old keys
- Removes rust from rollers on storage shed door
- Removes rust from sewer cables and helps easily go down drain pipes
- Removes rust from stainless steel vault doors
- Removes scuff marks from walkie-talkies
- Removes spray paint from reflectorized street markers
- Removes squeak from dental chairs
- Removes stains from coffee cups
- Removes surgical tape from hospital bed rails
- Removes tape from office furniture
- Removes tape marks from dry erase boards
- Removes tar and asphalt from soles of shoes
- Removes tar from feet
- Removes tar from hands
- Removes transparent tape from x-ray machines
- Removes tree sap from tree snippers
- Removes water from wet electrical cords
- Renews dried-up ink on adding machine ink rollers
- Separates lamination of plastics
- Shines atlas missiles
- Softens rubber O-ring
- Spray a little on the tips of "dead" ball point pens to rejuvenate them
- Spray bottoms of storage containers to prevent sticking to shelves
- Spray chalk lines drawn on asphalt to keep them from washing away in the rain
- Spray chisels for smooth cutting
- Spray in a box of nails to keep them fresh and rust-free
- Spray locking rods of portable fire proof safes to keep them operating freely
- Spray on aluminum cylinder heads to prevent galling and cross threading
- Spray on bed liners to keep rebar from sticking
- Spray on main valve for pond pumps to check for a tight seal
- Spray on paint before scraping to make paint come off easier
- Spray on rag and wipe exterior to help clean CPR mannequins
- Spray on rudder to prevent corrosion and loosen stuck parts
- Spray on seat coverings when fitting seat frames for easy application
- Spray on sewer vent cover to keep it from freezing shut
- Spray on swing blade for smoother cutting
- Spray on the inside of Victaulic pipe clamps for easier application of anti-seize
- Spray on workbench to keep glue from sticking
- Spray pegs in peg board for easy adjustment

- Spray stereo wires to keep them from sticking when running through auto firewalls
- Spray tie down ropes prior to securing load to keep them from scratching truck paint
- Stops squeak of calculator tape register
- Stops squeaks on add-ons to police gun belt
- Stops squeaks on gears of hydraulic chairs
- Stops squeaks on metal library book carts
- Stops squeaks on papercutters
- Stops squeaks on sliding keyboard holder
- Stops squeaks on web gear (listol belt) during army maneuvers
- Stops the squeaky noise from x-ray film cartridges
- Use a full can for a nifty paperweight
- Use as a cutting oil when drilling
- Use as a tapping lubricant
- Use as coolant and polishing agent in a grinding operation
- Use as cutting fluid when drilling copper
- Use can to prop open windows
- Use for PMCS (Preventative Maintenance Checks and Service) of military issued weapons like the M16A2 rifle
- Use for science project on rust prevention
- Use full cans for bookends
- Use on chair fittings to reduce noise
- Use to unstick telephone buttons
- Winterizes lawnmower to prevent freezing and rust while in storage
- Wipe across heavy laminates to make cutting easier
- Works well for dissolving thread lock compound
- Displaces moisture from electrical conduits
- Helps remove heavy grease deposits from heavy-duty conveyor systems
- Protects pneumatic and hydraulic fittings from rust
- Lubricates and protects air conditioner blades
- Helps make snow "roll" right off snowplow blades
- Prevents rust on inside of door panels
- Drives moisture from heavy-duty drills
- Eases removal of bolts when replacing a leaky evaporator coil
- Eases removal of dried paint from metal stencils when sprayed on before painting
- Eases replacement of fan blades
- Frees stuck metal aviation snips
- Helps disconnect damaged pipe when sprayed on pipe threads
- Helps keep paint on farm machinery shiny and free from cracks
- Helps working on a "chiller" easier
- Keeps lawnmower wheels turning smoothly
- Keeps trench box pin lubricated and gunk-free when used after each job
- Loosens and penetrates rusted or stuck plumbing joints
- Loosens bolts and nuts around pipe clamps to help ease removal
- Loosens interior plumbing device that controls bath drain plug
- Loosens rusty parts on lawnmower
- Lubricates and protects power tools
- Lubricates and removes surface rust from tools
- Lubricates copsaws
- Lubricates elevator cables
- Lubricates hinges on doors, gates, toolboxes and ladders
- Lubricates nail guns
- Lubricates pipe cutting wheels on tubing cutters
- Lubricates tractor throttle cables
- Makes backhoe ram pins easier to remove
- Makes installation of window glass easier when sprayed on rubber gasket
- Prevents rust on rototiller blades during off-season
- Protects heavy-duty cutting heads
- Protects plumbing "runner" ropes from being burned by molten lead
- Removes duct tape residue from work boots
- Removes grease and grime from metal hand tools
- Removes grease and grime from pliers
- Removes grease and grime from screwdrivers
- Removes grease and grime from wrenches
- Removes roofing tar off circular saw blades
- Removes rust from saws
- Lubricates wood screws for easier installation
- Prevents corrosion on irrigation systems
- Lubricates control pulleys
- Protects band saws from rust and corrosion