



FLASHLIGHTS & ROAD SAFETY

Visibility can be a matter of life or death. In dark places, a safe source of illumination can give your workers the confidence to accomplish their tasks. Stay free from dangers that lurk in darkness with our selection of safe light sources!



SAFETY FLASHLIGHTS



A bulb's lumens is the measurement of the entire output of the bulb. Focus is not considered.



The lumens of LEDs is a the measurement of the light within the beam angle.



Peak beam candlepower is the measure of the brightest spot in a focused beam

GUIDELINES FOR CHOOSING A SUITABLE FLASHLIGHT FOR YOUR WORK:

HOW BRIGHT?		BATTERY TYPE?							
For close-up work	Long range beam	Infrequent usage		Frequent usage					
LED	Incandescent		Disposable		Rechargeable				
<ul style="list-style-type: none"> Solid state construction Durable, long-life Soft focus, short range Extremely long runtimes (100's of hours) at low illumination levels 	Halogen	Xenon	Alkaline	Lithium	Nickel Cadmium (NiCd)	Lithium Ion	Rechargeable Alkaline	Nickel Metal Hydride (NiMH)	Lead Acid
	Blackens less with age. Affordable easy to replace.	Energy efficient, lasts longer than halogen bulbs, has no filament.	Smaller capacity than lithium.	Very high energy density, higher than alkaline. More costly. Toxic. Longer shelf-life than alkaline.	Banned from most uses by EU in 2004. Cadmium is toxic. Possesses memory effect.	Best energy-to-mass ratios. Slow self-discharge. No memory effect.	Few recharge cycles. Capacity drops every time it's recharged.	Not recommended for Flashlights. No memory effect.	Very high power density.
	<ul style="list-style-type: none"> Requires periodic replacement Fails on extreme impact Hi-output natural white light Top choice for long range 		<ul style="list-style-type: none"> Longer runtime than rechargeables Lower initial purchase price Easy access to spare batteries Seldom as bright High operating expense 7 to 10 years storage life 		<ul style="list-style-type: none"> Higher initial purchase price Supports brighter bulbs or LEDs Stores conveniently Low operating expense Self-discharge at higher rates in storage 				

*Memory effect, or battery memory, is an effect whereby the battery appears to "remember" the previous leftover energy capacity. A battery with memory effect gradually loses its maximum energy capacity after being recharged before it is fully discharged.

It is important to know if you'll be working in a hazardous environment and exactly what type of hazards may be present. There are several types of locations in which it can be extremely dangerous to use any light that has not been specifically designed and approved for that kind of location. It is crucial that your light be safety-rated for specific kind of environment if you would like to use a flashlight in any potential hazardous location.

SAFETY FLASHLIGHTS

The US-based National Electric Code (NEC) defines hazardous locations by "class" and "division". Products that have an NEC classification are protected within the environments specified by their classification. Hazardous areas outside North America are classified by gas groups and zones. Zones are used to define the probability of the presence of flammable materials and groups classify the exact flammable nature of the material.

Difference between US Classification & Europe Classification



Class I

Locations are made hazardous by the presence of flammable gases, liquids or vapors

US Classification

Division 1

Where ignitable concentrations of flammable gases, vapours or liquids can exist all of the time or some of the time under normal operating conditions.

Division 2

Where ignitable concentrations of flammable gases, vapours or liquids are not likely to exist under normal operating conditions.

Europe Classification

Zone 0

Where ignitable concentrations of flammable gases, vapours or liquids are present continuously or for long periods of time under normal operating conditions.

Zone 1

Where ignitable concentrations of flammable gases, vapours or liquids are likely to exist under normal operating conditions.

Zone 2

Where ignitable concentrations of flammable gases, vapours or liquids are not likely to exist under normal operating conditions.

Groups

Division 1 & 2:

A - Acetylene
B - Hydrogen
C - Ethylene
D - Propane

Zone 0, 1 & 2:

IIC - Acetylene, Hydrogen
IIC - Acetylene, Hydrogen
IIB - Ethylene
IIA - Propane



Class II

Locations are hazardous because combustible dusts are present

US Classification

Division 1

Where ignitable concentrations of combustible dusts can exist all of the time or some of the time under normal operating conditions.

Division 2

Where ignitable concentrations of combustible dusts are not likely to exist under normal operating conditions.

Europe Classification

Zone 20

Where combustible dusts or ignitable fibers and flyings are present continuously or for long periods of time in quantities sufficient to be hazardous.

Zone 21

Where combustible dust or ignitable fibers and flyings are present continuously or long periods of time in quantities sufficient to be hazardous.

Zone 22

Where combustible dust or ignitable fibers and flyings are not likely to occur under normal operation in quantities sufficient to be hazardous.

Groups

Division 1 & 2:

E - Metals - Div. 1 only
F - Coal
G - Grain

Zone 0, 1 & 2:

None



Class III

Locations contain easily ignitable fibers or flyings

US Classification

Division 1

Where easily ignitable fibers or materials producing combustible flyings are handled, manufactured or used.

Division 2

Where easily ignitable fibers are stored or handled.

Europe Classification

Group

None

Temperature Codes

US Classification

T1 < 450
T2 < 300
T2A < 280
T2B < 260
T2C < 230
T2D < 215
T3 < 200
T3A < 180
T3B < 165
T3C < 160
T4 < 135
T4A < 120
T5 < 100
T6 < 85

Europe Classification

T1 < 450
T2 < 300

T3 < 200

T4 < 135
T5 < 100
T6 < 85

SAFETY FLASHLIGHTS

WORKBrite®

WORKBrite® by WORKSafe® is a range of high performance, intrinsically safe flashlights made for use in hazardous locations. Featuring high impact-resistant casings and high impact- and scratch-resistant polycarbonate lens and IP68 waterproof-rated, WORKBrite® is your tough and durable companion for all environments, even in water. With a special sink, WORKBrite® is excellent for long range lighting with enhanced LED efficiency.

WORKBrite® flashlights are tested and approved by Underwriters Laboratories Inc. (UL), one of world's leading independent laboratories. This testing is to ensure that the WORKBrite® flashlight you choose will be safe for use in your work environment. WORKBrite® delivers the lowest operating cost of any flashlight in its class!



WORKBRITE® FLASHLIGHTS



WSB202-Y



WSB202-Y INTRINSICALLY SAFE FLASHLIGHT

Impact-resistant LED flashlight provides 15 hours of operation time.

- Uses OSRAM Dragon LED
- Intrinsically safe for use in hazardous locations
- Aluminium heat sink helps to enhance LED efficiency
- High impact resistance, tough and durable casing with anti-slip handle
- High impact- and scratch-resistant polycarbonate lens
- Waterproof, rated IP67, dust tight and continuous immersion in 1m
- One hand operation: On/Off
- Brightness: 80 lumens
- Designed reflector for long range lighting up to 122m beam distance
- Peak Beam Intensity : 3752 candela
- Powered by 4 "AA" alkaline batteries
- Length : 17.5cm, Weight : 105g w/o batteries
- UL listed for use in Class I, Div 1, Group A,B,C,D; Class II, Div 1, Group E,F,G; Class III; T4

WSB101-Y INTRINSICALLY SAFE FLASHLIGHT

Impact-resistant LED flashlight provides 40 hours of operation time on High mode, and 60 hours on Low.

- Super bright Cree XP-E LED
- Intrinsically safe for use in hazardous locations
- Aluminium heat sink helps to enhance LED efficiency
- High impact resistance, tough and durable casing
- Clip- and clamp-on functions via a two-way position clip
- High impact- and scratch-resistant polycarbonate lens
- Automatic pressure equalization valve
- Waterproof, rated IPX7, immersion up to 1m for 30min
- One hand operation: High/Low/Off
- Operation time: 40 hours (High), 60 hours (Low)
- Designed reflector for long range lighting: 185m (High), 144m (Low)
- Peak Beam Intensity: 6505cd (High), 2850cd (Low)
- Powered by 3 "C" alkaline batteries
- Length : 22.5cm, Weight : 235g w/o batteries.
- UL listed for use in Class I, Div 1 & 2, Group A,B,C,D; Class II, Div 1 & 2, Group E,F,G; Class III; T4



WSB101-Y



BRAND	PRODUCT CODE	DESCRIPTION
WORKBRITE®	980WSB202-Y	WSB202-Y Intrinsically Safe Flashlight, 4AA OSRAM Dragon LED
	980WSB101-Y	WSB101-Y Intrinsically Safe Flashlight, 3C CREE XP-E LED

EMERGENCY LIGHTING

AIR SYSTEMS AIR-LIGHT™ PORTABLE LED LIGHT

- For use in all weather conditions and terrain
- Internal battery can be charged from external 12 VDC or 110-240 VAC, 50/60 Hz power sources and the Air-Light™ can operate while charging
- Power port socket for charging of internal battery or powering external accessories such as cell phones, laptops, handheld lights, or any device utilizing 12 VDC power
- Operate/charge with clamp style jumper cables
- Unit delivered fully assembled in a roller case with handle
- Unit deploys/stows rapidly without the use of tools and folds to fit within the integral case
- Stainless steel legs extend up to 33"
- Operational in sustained 35 mph full frontal winds, 65+ mph rear winds
- Mast extends from a range of 30" - 87" above ground
- Declaration of Conformity CE council directive 2006/95/EC

- Specifications Declared: Essential health and Safety Requirements of Annex 1 of the Low Voltage Directive
- RoHS (Restriction of Hazardous Substances) compliant
- CE registered lights
- Battery FAA, DOT, CAB, IA, and TA approved for air transport



BRAND	PRODUCT CODE	DESCRIPTION
AIR SYSTEMS	920ASIAL4CUBEBP	Air Systems Air-Light™ Quad Cube LED light

AIR SYSTEMS MINI-CUBE™ FLAGGER LIGHT

- For use in all weather conditions
- IP-68 rated dustproof and waterproof LED lights
- Lifetime warranty on light heads
- Mast range 24" to 96" (8 foot above ground)
- Collapsible aluminum extension mast with locking latches and retractable cable
- Push-to-test volt meter built into front panel
- 12 VDC power port for quick charge from an external battery source or voltage out to run 12-volt devices
- Adjustable directional lamphead(s)
- LED Patent #D610.725 S
- Collapsible aluminum extension mast with cam lock adjustments and retractable cable
- Independent Light on/off switches
- Digital Push-to-test Voltage meter
- DC Power Port
- NEMA 3 Protection
- Charge cord supplied with Velcro® Holder
- Polyethylene collapsible Legs Provide 30" Support Base and Retract for storage
- 115 VAC Charger Jack
- Dimensions: 26" H x 15" w x 6" D

- Weight: 36 lbs.
- Battery FAA, DOT, CAB, IA, AND TA approved for air transport
- RoHS (Restriction of Hazardous Substances) Compliant



BRAND	PRODUCT CODE	DESCRIPTION
AIR SYSTEMS	920ASIAL2MCBP	Air Systems Mini-Cube™ Dual LED light