

Risk Phrases

The following are provided to enable the reader to understand the potential impact of industrial substances on the user and on the environment.

Assessing the level of risk requires consideration of the actual level of exposure, since the phrases relate to continuous exposure to the specific component in a working environment, and also the concentration of the substance in the component.

- R1: Explosive when dry
- R2: Risk of explosion by shock, friction, fire or other sources of ignition
- R3: Extreme risk of explosion by shock, friction, fire or other sources of ignition
- R4: Forms very sensitive explosive metallic compounds
- R5: Heating may cause an explosion
- R6: Explosive with or without contact with air
- R7: May cause fire
- R8: Contact with combustible material may cause fire
- R9: Explosive when mixed with combustible material
- R10: Flammable
- R11: Highly flammable
- R12: Extremely flammable
- R14: Reacts violently with water
- R15: Contact with water liberates extremely flammable gases
- R16: Explosive when mixed with oxidising substances
- R17: Spontaneously flammable in air
- R18: In use, may form flammable/explosive vapour-air mixture
- R19: May form explosive peroxides
- R20: Harmful by inhalation
- R21: Harmful in contact with skin
- R22: Harmful if swallowed
- R23: Toxic by inhalation
- R24: Toxic in contact with skin
- R25: Toxic if swallowed
- R26: Very toxic by inhalation
- R27: Very toxic in contact with skin
- R28: Very toxic if swallowed
- R29: Contact with water liberates toxic gas.
- R30: Can become highly flammable in use
- R31: Contact with acids liberates toxic gas
- R32: Contact with acids liberates very toxic gas
- R33: Danger of cumulative effects
- R34: Causes burns
- R35: Causes severe burns
- R36: Irritating to eyes
- R37: Irritating to respiratory system
- R38: Irritating to skin
- R39: Danger of very serious irreversible effects
- R40: Limited evidence of a carcinogenic effect
- R41: Risk of serious damage to eyes
- R42: May cause sensitisation by inhalation
- R43: May cause sensitisation by skin contact
- R44: Risk of explosion if heated under confinement
- R45: May cause cancer
- R46: May cause heritable genetic damage
- R48: Danger of serious damage to health by prolonged exposure
- R49: May cause cancer by inhalation

- R50: Very toxic to aquatic organisms
- R51: Toxic to aquatic organisms
- R52: Harmful to aquatic organisms
- R53: May cause long-term adverse effects in the aquatic environment
- R54: Toxic to flora
- R55: Toxic to fauna
- R56: Toxic to soil organisms
- R57: Toxic to bees
- R58: May cause long-term adverse effects in the environment
- R59: Dangerous for the ozone layer
- R60: May impair fertility
- R61: May cause harm to the unborn child
- R62: Possible risk of impaired fertility
- R63: Possible risk of harm to the unborn child
- R64: May cause harm to breast-fed babies
- R65: Harmful: may cause lung damage if swallowed
- R66: Repeated exposure may cause skin dryness or cracking
- R67: Vapours may cause drowsiness and dizziness
- R68: Possible risk of irreversible effects

Combinations

- R14/15: Reacts violently with water, liberating extremely flammable gases
- R15/29: Contact with water liberates toxic, extremely flammable gases
- R20/21: Harmful by inhalation and in contact with skin
- R20/22: Harmful by inhalation and if swallowed
- R20/21/22: Harmful by inhalation, in contact with skin and if swallowed
- R21/22: Harmful in contact with skin and if swallowed
- R23/24: Toxic by inhalation and in contact with skin
- R23/25: Toxic by inhalation and if swallowed
- R23/24/25: Toxic by inhalation, in contact with skin and if swallowed
- R24/25: Toxic in contact with skin and if swallowed
- R26/27: Very toxic by inhalation and in contact with skin
- R26/28: Very toxic by inhalation and if swallowed
- R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed
- R27/28: Very toxic in contact with skin and if swallowed
- R36/37: Irritating to eyes and respiratory system
- R36/38: Irritating to eyes and skin
- R36/37/38: Irritating to eyes, respiratory system and skin
- R37/38: Irritating to respiratory system and skin
- R39/23: Toxic: danger of very serious irreversible effects through inhalation
- R39/24: Toxic: danger of very serious irreversible effects in contact with skin
- R39/25: Toxic: danger of very serious irreversible effects if swallowed
- R39/23/24: Toxic: danger of very serious irreversible effects through inhalation and in contact with skin
- R39/23/25: Toxic: danger of very serious irreversible effects through inhalation and if swallowed
- R39/24/25: Toxic: danger of very serious irreversible effects in contact with skin and if swallowed
- R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
- R39/26: Very Toxic: danger of very serious irreversible effects through inhalation
- R39/27: Very Toxic: danger of very serious irreversible effects in contact with skin
- R39/28: Very Toxic: danger of very serious irreversible effects if swallowed
- R39/26/27: Very Toxic: danger of very serious irreversible effects through inhalation and in contact with skin

- R39/26/28: Very Toxic: danger of very serious irreversible effects through inhalation and if swallowed
- R39/27/28: Very Toxic: danger of very serious irreversible effects in contact with skin and if swallowed
- R39/26/27/28: Very Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed
- R42/43: May cause sensitization by inhalation and skin contact
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation
- R48/21: Harmful: danger of serious damage to health by prolonged exposure in contact with skin
- R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed
- R48/20/21: Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin
- R48/20/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed
- R48/21/22: Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed
- R48/20/21/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
- R48/23: Toxic: danger of serious damage to health by prolonged exposure through inhalation
- R48/24: Toxic: danger of serious damage to health by prolonged exposure in contact with skin
- R48/25: Toxic: danger of serious damage to health by prolonged exposure if swallowed
- R48/23/24: Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin
- R48/23/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed
- R48/24/25: Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed
- R48/23/24/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
- R68/20: Harmful: possible risk of irreversible effects through inhalation
- R68/21: Harmful: possible risk of irreversible effects in contact with skin
- R68/22: Harmful: possible risk of irreversible effects if swallowed
- R68/20/21: Harmful: possible risk of irreversible effects through inhalation and in contact with skin
- R68/20/22: Harmful: possible risk of irreversible effects through inhalation and if swallowed
- R68/21/22: Harmful: possible risk of irreversible effects in contact with skin and if swallowed
- R68/20/21/22: Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed

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