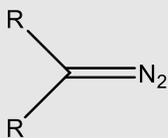
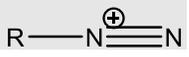
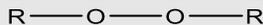
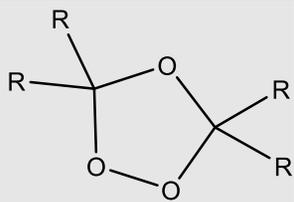
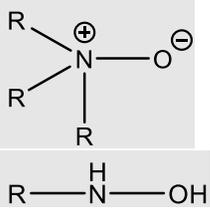
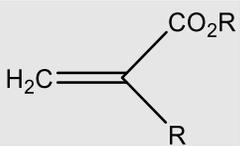


EXAMPLES OF EXPLOSIVE CHEMICALS

Examples of Explosive Chemicals

Compound class	Examples	CAS Registry Number	Nature of hazard
Diazo compounds 	Diazomethane Trimethylsilyldiazomethane Ethyl diazoacetate	334-88-3 18107-18-1 623-73-4	Diazo compounds are impact-sensitive and may be friction-sensitive (diazomethane can explode on contact with rough surfaces).
Diazonium salts 	Phenyldiazonium chloride Phenyl-2-diazonium carboxylate	100-34-5 1608-42-0	Diazonium salts may be explosive depending on the counterion .
Inorganic and organic azides 	Sodium azide Lead azide Benzyl azide 4-azido-L-phenylalanine	26628-22-8 13424-46-9 622-79-7 33173-53-4	Inorganic azides may be explosive. Lead azide is a primary explosive, while sodium azide is less sensitive and used in airbags in automobiles. Organic azides may be explosive depending on the organic group, particularly in relation to the ratio of azide nitrogen atoms to carbon atoms present in the molecule.
Mixtures of azide salts and dichloromethane	Dichloromethane Diazidomethane	75-09-2 107585-03-5	Dichloromethane is susceptible to reactions with strong nucleophiles such as azide salts; the product diazidomethane is explosive and unstable.
Peroxides 	Hydrogen peroxide Benzoyl peroxide Tert-butyl hydroperoxide 1-Ethoxyethyl hydroperoxide Acetyl peroxide	7722-84-1 94-36-0 75-91-2 18321-53-4 110-22-5	Solids or concentrated solutions of peroxides can explode with loss of oxygen on heating, impact, or friction . Peroxides formed by the oxidation of ethers in air are friction- and impact- sensitive explosives.

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Mixtures of hydrogen peroxide and acetone	Acetone Triacetone triperoxide (TATP)	67-64-1 17088-37-8	Acetone and hydrogen peroxide can form acetone peroxides such as the notoriously sensitive explosive TATP .
Ozonides 	Artemisinin Styrene ozonide	63968-64-9 23253-30-7	Ozonides are formed during the oxidative cleavage of alkenes with ozone and are generally unstable and explosive , depending on molecular size.
N-oxides and hydroxylamines 	Hydroxylamine Trimethylamine oxide Hydroxybenzotriazole (HOBt)	7803-49-8 1184-78-7 2592-98-2	Hydroxylamine free base explodes when heated . HOBt is also explosive .
Azodicarboxylates 	Diethyl azodicarboxylate	1972-28-7	Azodicarboxylates are explosive in dry form.
Inorganic and organic perchlorates	Perchloric acid Ammonium perchlorate Ethyl perchlorate	7601-90-3 7790-98-9 22750-93-2	The perchlorate ion is a strong oxidant. Metal and organic perchlorate salts , perchlorate esters, and mixtures of perchlorates with organic material are susceptible to explosion .
Acrylates 	Methyl acrylate Methyl methacrylate	96-33-3 80-62-6	Unstabilized acrylates can undergo rapid and exothermic polymerization , causing fires and explosions .
	Tert-butyllithium	594-19-4	Tert-butyllithium and its solutions are pyrophoric, (burning on contact with air , water and alcohols).

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<p>Boranes</p> 	<p>Borane-THF adduct 9-Borabicyclo[3.3.1]nonane</p>	<p>14044-65-6 280-64-8</p>	<p>Boranes and borohydride reagents are pyrophoric in neat form and in concentrated solutions.</p>
<p>Metal alkyls</p>	<p>Trimethylaluminum Triethylaluminum Diethylzinc</p>	<p>75-24-1 97-93-8 557-20-0</p>	<p>Metal alkyls such as trimethyl- and triethylaluminum and diethylzinc are pyrophoric.</p>
<p>Alkali metals</p>	<p>Sodium Potassium</p>	<p>7440-23-5 7440-09-7</p>	<p>Alkali metals react with water to form hydrogen, which is ignited by the heat of the reaction. Reactions of alkali metals with a variety of solvents may also cause fires.</p>
	<p>Sodium-potassium alloy</p>	<p>11135-81-2</p>	<p>Sodium-potassium alloy is liquid at room temperature so is significantly more reactive than its elements.</p>
<p>Condensed gases</p>	<p>Nitrogen Oxygen</p>	<p>7727-37-9 7782-44-7</p>	<p>Sealed containers containing condensed gases can explode if cooling is lost. Liquid oxygen is a strong oxidizer and is also formed by condensation from air with liquid nitrogen.</p>
<p>Compressed gases</p>	<p>Hydrogen Acetylene</p>	<p>1333-74-0 74-86-2</p>	<p>Hydrogen forms explosive mixtures with air or other oxidants. Acetylene forms explosive mixtures with air over a wide range of compositions and also explodes upon compression.</p>
	<p>Dimethyl sulfoxide (DMSO)</p>	<p>67-68-5</p>	<p>DMSO can form explosive mixtures when heated with acids, bases, electrophiles, and oxidants or even alone when heated in a vacuum.</p>

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