



Graphilor®  
Isostatic impregnated graphite

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# GRAPHILOR®

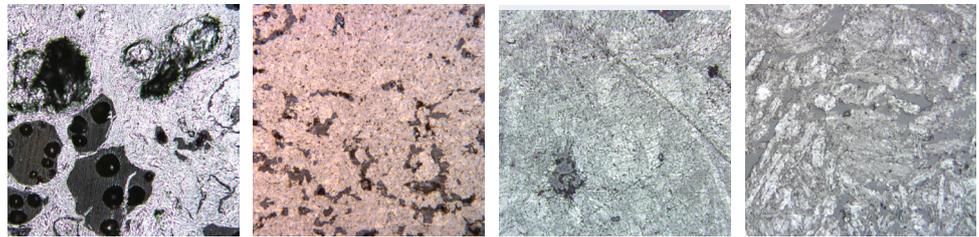
## FEATURES AND APPLICATIONS

### CARACTÉRISTIQUES ET APPLICATIONS

**Graphilor®, the superior mechanical and corrosion resistant graphite**

Graphilor's use of ultra-fine grain isostatic graphite, is unique in the Chemical Process industries.

- Highest mechanical resistance for graphite tubes (Up to 34MPa)
- High temperature resistance (400°C maximum) with Mersen's exclusive carbon impregnation (XC)
- Impregnation know-how: 3 differents impregnations types (Phenolic, Carbon and PTFE)



MICROGRAPH OF  
GRAPHILOR® BS

MICROGRAPH OF  
GRAPHILOR® XBS

MICROGRAPH OF  
GRAPHILOR® XTH

MICROGRAPH OF  
GRAPHILOR® XC

PROPERTIES	Graphite	Fine grains	Ultra-fine grains	Ultra-fine grains	Ultra-fine grains
	Average pore diameter (µm)	5-9	1.7	1.7	1.7
	Resin Impregnation	Phenolic	Phenolic	PTFE	Carbon
	Temperature resistance (°C)	200	220	250	400
MECHANICAL STRENGTH	TUV Homologation	G 18-15-200	G 20-00-220	G 15-00-250	G 18-00-400
APPLICATIONS		Optimal choice for strong acids, slightly oxidizing, alkaline and saline solutions.		Best material resisting high concentrations of nitric and fluonitric acids. Specially suitable for heat exchangers running in the pickling baths lines.	Material specially used in hottest environment as top blocks and furnace of Sintaclor® (HCl Synthesis Unit) or as a quench of hot gas and gas cooler Polybloc®.

## HOW TO READ THIS CARD ?

COMMENT LIRE CETTE TABLE

EXCELLENT  
RESISTANCE



RÉSISTANCE  
EXCELLENTE

RESISTANCE DEPENDING  
UPON TEMPERATURE,  
CONCENTRATION, FLUIDS



RÉSISTANCE DÉPENDANT  
DE LA TEMPÉRATURE,  
DES CONCENTRATIONS ET DES FLUIDES

LOW RESISTANCE



RÉSISTANCE FAIBLE

NO DATA (PLEASE CONTACT US)



ABSENCE DE DONNÉES  
(NOUS CONSULTER)

### MAXIMUM OPERATING TEMPERATURE FOR THE DIFFERENT IMPREGNATIONS

TEMPÉRATURE MAXIMALE D'UTILISATION  
POUR LES DIFFÉRENTES IMPRÉGNATIONS

EXTRUDED GRAPHITE IMPREGNATED  
WITH PHENOLIC RESIN

GRAPHILOR®  
**BS**

GRAPHITE EXTRUDÉ IMPRÉGNÉ  
AVEC DE LA RÉSINE PHÉNOLIQUE

ISOSTATIC GRAPHITE IMPREGNATED  
WITH PHENOLIC RESIN

GRAPHILOR®  
**XBS**

GRAPHITE ISOSTATIQUE IMPRÉGNÉ  
AVEC DE LA RÉSINE PHÉNOLIQUE

ISOSTATIC GRAPHITE IMPREGNATED  
WITH CARBON RESIN

GRAPHILOR®  
**XC**

GRAPHITE ISOSTATIQUE IMPRÉGNÉ  
AVEC DE LA RÉSINE CARBONE

ISOSTATIC GRAPHITE IMPREGNATED  
WITH PTFE RESIN

GRAPHILOR®  
**XTH**

GRAPHITE ISOSTATIQUE IMPRÉGNÉ  
AVEC DE LA RÉSINE PTFE

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	BS	XBS	XTH	XC	Temp. °C	XC	PRODUITS CHIMIQUES				
		Concentration %										
		20			60				100			
		20	60	100	20		60		100	20	60	100
Air	250 150 50					500 300 100		Air				
Alkaline Hypochlorites NaClO, KClO	250 150 50							Hypochlorites alcalins NaClO, KClO				
Alum Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> K <sub>2</sub> SO <sub>4</sub> - 24 H <sub>2</sub> O	250 150 50							Alum Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> K <sub>2</sub> SO <sub>4</sub> - 24 H <sub>2</sub> O				
Aluminium chloride AlCl <sub>3</sub>	250 150 50							Aluminium (chlorure d') AlCl <sub>3</sub>				
Ammoniac NH <sub>3</sub> , NH <sub>4</sub> OH	250 150 50					500 300 100		Ammoniac Ammoniaque NH <sub>3</sub> , NH <sub>4</sub> OH				
Ammonium bifluoride NH <sub>4</sub> F · HF	250 150 50							Ammonium (bifluorure d') NH <sub>4</sub> F · HF				
Ammonium bisulphate NH <sub>4</sub> SO <sub>4</sub> H	250 150 50							Ammonium (bisulfate d') NH <sub>4</sub> SO <sub>4</sub> H				
Ammonium chloride NH <sub>4</sub> Cl	250 150 50							Ammonium (chlorure d') NH <sub>4</sub> Cl				
Ammonium (persulfate) + H <sub>2</sub> SO <sub>4</sub> (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub> + H <sub>2</sub> SO <sub>4</sub> (25%, 20%)	250 150 50							Ammonium (persulfate) + H <sub>2</sub> SO <sub>4</sub> (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub> + H <sub>2</sub> SO <sub>4</sub> (25%, 20%)				
Ammonium sulphate (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	250 150 50							Ammonium (sulfate) (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>				

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS

PRODUITS  
CHIMIQUES

	Temp. °C	Concentration %												Temp. °C	XC		
		BS			XBS			XTH			XC						Co. %
		20	60	100	20	60	100	20	60	100	20	60	100				
		20	60	100	20	60	100	20	60	100	20	60	100				
Aqua regia HCl + HNO <sub>3</sub>	250 150 50	[Red]			[Red]			[Green]			[Red]				Eau régale HCl + HNO <sub>3</sub>		
Arsenic acid H <sub>3</sub> AsO <sub>4</sub>	250 150 50	[Red]			[Green]			[Green]			[Green]				Arsénique (acide) H <sub>3</sub> AsO <sub>4</sub>		
Boric acid H <sub>3</sub> BO <sub>3</sub>	250 150 50	[Red]			[Green]			[Green]			[Green]				Borique (acide) H <sub>3</sub> BO <sub>3</sub>		
Bromine Br <sub>2</sub>	250 150 50	[Red]			[Red]			[Red]			[Red]				Brome Br <sub>2</sub>		
Bromine water Br + H <sub>2</sub> O	250 150 50	[Red]			[Red]			[Red]			[Red]				Brome (eau de) Br + H <sub>2</sub> O		
Calcium chlorate Ca(ClO <sub>3</sub> ) <sub>2</sub>	250 150 50	[Red]			[White]			[White]			[White]				Calcium (chlorate de) Ca(ClO <sub>3</sub> ) <sub>2</sub>		
Calcium hypochlorite Ca(ClO) <sub>2</sub> (chlorkalk)	250 150 50	[Red]			[Red]			[Red]			[Red]				Calcium (hypochlorite de) Ca(ClO) <sub>2</sub> (chlorkalk)		
Carbone disulfide CS <sub>2</sub>	250 150 50	[Red]			[Yellow]			[Green]			[Green]				Carbone (sulfure de) CS <sub>2</sub>		
Carbonic acid H <sub>2</sub> CO <sub>3</sub>	250 150 50	[Red]			[Green]			[Green]			[Green]			500 300 100	Carbonique (acide) H <sub>2</sub> CO <sub>3</sub>		
Caustic soda NaOH	250 150 50	[Red]			[Red]			[Green]			[Green]				Soude caustique NaOH		

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	Qualities of GRAPHILOR® Grades des GRAPHILOR®												Temp. °C	XC	PRODUITS CHIMIQUES	
		BS			XBS			XTH			XC						Co. %
		Concentration %															
		20	60	100	20	60	100	20	60	100	20	60	100				
Chlor saturated hydrochloric acid HCl + Cl <sub>2</sub>	250	Red			Red			Red			White					Chlorhydrique (acide) saturé en chlore HCl + Cl <sub>2</sub>	
Chlorosulphonic acid HSO <sub>3</sub> Cl	250	Red			Red			Red			Red					Chlorosulfonique (acide) HSO <sub>3</sub> Cl	
Chrome plating solution CrO <sub>3</sub> + H <sub>2</sub> SO <sub>4</sub>	250	Red			Red			Red			Red					Chromage (mélange pour bain de) CrO <sub>3</sub> + H <sub>2</sub> SO <sub>4</sub>	
Chromic acid H <sub>2</sub> CrO <sub>4</sub>	250	Red			Red			Red			Red					Chromique (acide) H <sub>2</sub> CrO <sub>4</sub>	
Cupric chloride CuCl <sub>2</sub>	250	Red			Red			Red			Red					Cuivrique (chlorure) CuCl <sub>2</sub>	
Cupric sulphate CuSO <sub>4</sub>	250	Red			Red			Red			Red					Cuivre (sulfate de) CuSO <sub>4</sub>	
Dry chlorine Cl <sub>2</sub>	250	Red			Red			Red			Red			500	Red	Chlore sec Cl <sub>2</sub>	
	150	White			White			White			White			300	White		
	50	Yellow			Yellow			Yellow			Yellow			100	Yellow		
Ferric chloride FeCl <sub>3</sub>	250	Red			Red			Red			Red					Ferrique (chlorure) FeCl <sub>3</sub>	
Ferrous chloride FeCl <sub>2</sub>	250	Red			Red			Red			Red					Ferreux (chlorure) FeCl <sub>2</sub>	
Ferrous sulfate FeSO <sub>4</sub>	250	Red			Red			Red			Red					Ferreux (sulfate) FeSO <sub>4</sub>	

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS

PRODUITS CHIMIQUES

	Temp. °C	Concentration %												Temp. °C	Co. %		
		BS			XBS			XTH			XC						XC
		20	60	100	20	60	100	20	60	100	20	60	100				
		20	60	100	20	60	100	20	60	100	20	60	100				
Fluoboric acid HBF <sub>4</sub>	250 150 50	[Red]			[Red]			[Green]			[Green]				Fluoborique (acide) HBF <sub>4</sub>		
Fluonitric bath HNO <sub>3</sub> + HF (20%, 8%)	250 150 50	[Red]			[Red]			[Green]			[White]				Fluonitrique (bain) HNO <sub>3</sub> + HF (20%, 8%)		
Fluorine (dry) F <sub>2</sub>	250 150 50	[Red]			[Red]			[Green]			[Green]			500 300 100	Fluor (sec) F <sub>2</sub>		
Fluorine water F <sub>2</sub> + H <sub>2</sub> O	250 150 50	[Red]			[Red]			[Green]			[Green]				Fluor (eau de) F <sub>2</sub> + H <sub>2</sub> O		
Fluorosilicic acid H <sub>2</sub> SiF <sub>6</sub>	250 150 50	[Red]			[Red]			[Green]			[Green]				Fluorosilicique (acide) H <sub>2</sub> SiF <sub>6</sub>		
Hydrobromic acid HBr	250 150 50	[Red]			[Red]			[Green]			[Green]				Bromhydrique (acide) HBr		
Hydrochloric acid HCl	250 150 50	[Red]			[Red]			[Green]			[Green]			500 300 100	Chlorhydrique (acide) HCl		
Hydrofluoric acid HF	250 150 50	[Red]			[Red]			[Green]			[Green]			500 300 100	Fluorhydrique (acide) HF		
Hydrogen sulfide wet H <sub>2</sub> S + H <sub>2</sub> O	250 150 50	[Red]			[Red]			[Green]			[Green]				Sulfhydrique (acide dissous) H <sub>2</sub> S + H <sub>2</sub> O		
Iodine water I + H <sub>2</sub> O	250 150 50	[Red]			[Red]			[Green]			[Green]				Iode (eau d') I + H <sub>2</sub> O		

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	Qualities of GRAPHILOR® Grades des GRAPHILOR®												Temp. °C	XC	PRODUITS CHIMIQUES		
		BS			XBS			XTH			XC						Co. %	
		Concentration %																
		20	60	100	20	60	100	20	60	100	20	60	100					20
Manganese sulphate MnSO <sub>4</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green		Manganèse (sulfate de) MnSO <sub>4</sub>
Nascent chlorine Cl <sup>-</sup>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Chlore naissant Cl <sup>-</sup>
Nickel chloride NiCl <sub>2</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green		Nickel (chlorure de) NiCl <sub>2</sub>
Nickel sulphate NiSO <sub>4</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green		Nickel (sulfate de) NiSO <sub>4</sub>
Nitric acid HNO <sub>3</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Nitrique (acide) HNO <sub>3</sub>
Oleum acid H <sub>2</sub> SO <sub>4</sub> + SO <sub>3</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Oleum (acide) H <sub>2</sub> SO <sub>4</sub> + SO <sub>3</sub>
Phosphatization bath H <sub>2</sub> SO <sub>4</sub> + H <sub>3</sub> PO <sub>4</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Phosphatation (bain de) H <sub>2</sub> SO <sub>4</sub> + H <sub>3</sub> PO <sub>4</sub>
Phosphonitric bath P <sub>2</sub> O <sub>5</sub> + HNO <sub>3</sub> (75%, 0,1%)	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Phosphonitrique (bain) P <sub>2</sub> O <sub>5</sub> + HNO <sub>3</sub> (75%, 0,1%)
Phosphoric acid H <sub>3</sub> PO <sub>4</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Phosphorique (acide) H <sub>3</sub> PO <sub>4</sub>
Phosphorus chlorides PCl <sub>5</sub> , PCl <sub>3</sub>	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red		Phosphore (chlorures de) PCl <sub>5</sub> , PCl <sub>3</sub>

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS

PRODUITS CHIMIQUES

	Temp. °C	Concentration %				Temp. °C	Co. %									
		BS			XBS				XTH			XC				
		20	60	100	20				60	100	20	60	100	20	60	100
Phosphorus oxychloride POCl <sub>3</sub>	250 150 50														Phosphore (oxychlorure de) POCl <sub>3</sub>	
Potassium bichromate K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	250 150 50														Potassium (bichromate de) K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	
Potassium chlorate KClO <sub>3</sub>	250 150 50														Potassium (chlorate de) KClO <sub>3</sub>	
Potassium hydroxyde KOH	250 150 50														Potassium (hydroxyde de) KOH	
Sodium carbonate Na <sub>2</sub> CO <sub>3</sub>	250 150 50														Sodium (carbonate de) Na <sub>2</sub> CO <sub>3</sub>	
Sodium chloride NaCl	250 150 50														Sodium (chlorure de) NaCl	
Stannic chloride SnCl <sub>4</sub>	250 150 50														Stannique (chlorure) SnCl <sub>4</sub>	
Sulfur dioxide SO <sub>2</sub>	250 150 50													500 300 100	Sulfureux (anhydride) SO <sub>2</sub>	
Sulphonitric bath H <sub>2</sub> SO <sub>4</sub> + HNO <sub>3</sub> (85%, <0,1%)	250 150 50														Sulphonitrique (bain) H <sub>2</sub> SO <sub>4</sub> + HNO <sub>3</sub> (85%, <0,1%)	
Sulphonitric solution H <sub>2</sub> SO <sub>4</sub> + HNO <sub>3</sub> (50%, <0,1%)	250 150 50														Sulphonitrique (bain) H <sub>2</sub> SO <sub>4</sub> + HNO <sub>3</sub> (50%, <0,1%)	

# INORGANIC COMPOUNDS

## COMPOSÉS MINÉRAUX

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	BS	XBS	XTH	XC	Temp. °C	XC	PRODUITS CHIMIQUES				
		Concentration %										
		20			60				100			
		20	60	100	20		60		100	20	60	100
Sulphur chlorides S <sub>2</sub> Cl <sub>2</sub> (only) SCl <sub>2</sub> (only)	250							Soufre (chlorures de) S <sub>2</sub> Cl <sub>2</sub> (seul) SCl <sub>2</sub> (seul)				
	150											
	50											
Sulphur chlorides S <sub>2</sub> Cl <sub>2</sub> - SCl <sub>2</sub> (mixt)	250							Soufre (chlorures de) S <sub>2</sub> Cl <sub>2</sub> - SCl <sub>2</sub> (en mélange)				
	150											
	50											
Sulphuric acid H <sub>2</sub> SO <sub>4</sub>	250					500		Sulfurique (acide) H <sub>2</sub> SO <sub>4</sub>				
	150					300						
	100					100						
	50											
Sulphurous acid H <sub>2</sub> SO <sub>3</sub>	250							Sulfureux (acide) H <sub>2</sub> SO <sub>3</sub>				
	150											
	50											
Thionyl chloride SOCl <sub>2</sub>	250							Thionyle (chlorure de) SOCl <sub>2</sub>				
	150											
	50											
Steam water	250					500		Vapeur d'eau				
	150					300						
	100					100						
	50											
Wet chlorine Cl <sub>2</sub> + H <sub>2</sub> O	250							Chlore humide Cl <sub>2</sub> + H <sub>2</sub> O				
	150											
	50											
Zinc chloride ZnCl <sub>2</sub>	250							Zinc (chlorure de) ZnCl <sub>2</sub>				
	150											
	50											
Zinc sulphate ZnSO <sub>4</sub>	250							Zinc (sulfate de) ZnSO <sub>4</sub>				
	150											
	50											



# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	BS	XBS	XTH	XC	Temp. °C	XC	PRODUITS CHIMIQUES				
		Concentration %										
		20			60				100			
		20	60	100	20		60		100	20	60	100
Aliphatic amines $R - NH_2$	250 150 50							Amines aliphatiques $R - NH_2$				
Aliphatic ethylenic hydrocarbons $C_nH_{2n}$	250 150 50							Hydrocarbures aliphatiques éthyléniques $C_nH_{2n}$				
Aliphatic saturated hydrocarbons $C_nH_{2n+2}$	250 150 50							Hydrocarbures aliphatiques saturés $C_nH_{2n+2}$				
Amides $R - CO - NH_2$	250 150 50							Amides $R - CO - NH_2$				
Amino acids $R - CH \begin{matrix} \diagup CO_2H \\ \diagdown NH_2 \end{matrix}$	250 150 50							Aminés (acides) $R - CH \begin{matrix} \diagup CO_2H \\ \diagdown NH_2 \end{matrix}$				
Amyl alcohol $CH_3 - (CH_2)_3 - CH_2OH$	250 150 50							Amylique (alcool) $CH_3 - (CH_2)_3 - CH_2OH$				
Aniline $C_6H_5 - NH_2$	250 150 50							Aniline $C_6H_5 - NH_2$				
Aniline hydrochloride $C_6H_5 - NH_3Cl$	250 150 50							Aniline (chlorhydrate d') $C_6H_5 - NH_3Cl$				
Aromatic amines $(\Phi)_n - NH_2$	250 150 50							Amines aromatiques $(\Phi)_n - NH_2$				
Aromatic halogen derivatives $\Phi X_n$	250 150 50							Dérivés halogénés aromatiques $\Phi X_n$				

# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	Concentration %												Temp. °C	XC	PRODUITS CHIMIQUES	
		BS			XBS			XTH			XC						Co. %
		20	60	100	20	60	100	20	60	100	20	60	100				
		20			60			100			20						
Aromatic hydrocarbons ( $\phi$ ) <sub>n</sub>	250	Red			Red			Red			Green				Hydrocarbures aromatiques ( $\phi$ ) <sub>n</sub>		
Aromatic nitrate derivatives $\phi(\text{NO}_2)_n$	250	Red			Red			Red			Green				Dérivée nitrés aromatiques $\phi(\text{NO}_2)_n$		
Aromatic sulphur derivatives $\phi - \text{SO}_3\text{H}$	250	Red			Red			Red			Green				Dérivés sulfonés aromatiques $\phi - \text{SO}_3\text{H}$		
Benzene $\phi$	250	Red			Red			Red			Green				Benzène $\phi$		
Butyl alcohol $\text{CH}_3 - (\text{CH}_2)_2 - \text{CH}_2\text{OH}$	250	Red			Red			Red			Green				Butylique (alcool) $\text{CH}_3 - (\text{CH}_2)_2 - \text{CH}_2\text{OH}$		
Carbohydrates $\text{C}_n\text{H}_{2n}\text{O}_n$	250	Red			Red			Red			Green				Glucides $\text{C}_n\text{H}_{2n}\text{O}_n$		
Carbon tetrachloride $\text{CCl}_4$	250	Red			Red			Red			Green				Carbone (tétrachlorure de) $\text{CCl}_4$		
Carbylamine $\text{R} - \text{N} \equiv \text{C}$	250	Red			Red			Red			Green				Carbylamine $\text{R} - \text{N} \equiv \text{C}$		
Chloracetic acid $\text{ClCH}_2 - \text{CO}_2\text{H}$	250	Red			Red			Red			Green				Chloracétique (acide) $\text{ClCH}_2 - \text{CO}_2\text{H}$		
Chloral $\text{Cl}_3\text{C} - \text{CHO}$	250	Red			Red			Red			Green				Chloral $\text{Cl}_3\text{C} - \text{CHO}$		

# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

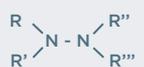
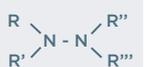
CHEMICALS	Temp. °C	BS	XBS						XTH						XC						Temp. °C	XC	PRODUITS CHIMIQUES																
		Concentration %																		Co. %																			
		20			60			100			20			60			100			20				60			100			20			60			100			
Chloral hydrate $\text{Cl}_3\text{C} - \text{CHO} \cdot \text{H}_2\text{O}$	250	Red			Red			Red			Green			Green			Green			Green					Chloral (hydrate de) $\text{Cl}_3\text{C} - \text{CHO} \cdot \text{H}_2\text{O}$														
Chlorobenzene $\text{C}_6\text{H}_5\text{Cl}$	250	Red			Red			Red			Green			Green			Green			Green					Chlorobenzène $\text{C}_6\text{H}_5\text{Cl}$														
Chloroform $\text{CCl}_3\text{H}$	250	Red			Red			Red			Green			Green			Green			Green					Chloroforme $\text{CCl}_3\text{H}$														
Chloronaphtalene $\text{C}_{10}\text{H}_7\text{Cl}$	250	Red			Red			Red			Green			Green			Green			Green					Chloronaphtalène $\text{C}_{10}\text{H}_7\text{Cl}$														
Citric acid $\text{C}_6\text{H}_8\text{O}_7$	250	Red			Red			Red			Green			Green			Green			Green					Citrique (acide) $\text{C}_6\text{H}_8\text{O}_7$														
Cresols $\text{C}_6\text{H}_4\text{OH} \cdot \text{CH}_3$	250	Red			Red			Red			Green			Green			Green			Green					Crésols $\text{C}_6\text{H}_4\text{OH} \cdot \text{CH}_3$														
Cyanogen chloride $\text{Cl} - \text{C} \equiv \text{N}$	250	Red			Red			Red			Green			Green			Green			Green					Cyanogène (chlorure de) $\text{Cl} - \text{C} \equiv \text{N}$														
Cyanuric chloride $(\text{Cl} - \text{C} = \text{N})_3$	250	Red			Red			Red			Green			Green			Green			Green					Cyanuryle (chlorure de) $(\text{Cl} - \text{C} = \text{N})_3$														
Diazo vals $\text{R} - \text{N} = \text{N} - \text{R}'$	250	Red			Red			Red			Green			Green			Green			Green					Diazoïques $\text{R} - \text{N} = \text{N} - \text{R}'$														
Dichlorobenzene $\text{C}_6\text{H}_4\text{Cl}_2$	250	Red			Red			Red			Green			Green			Green			Green					Dichlorobenzène $\text{C}_6\text{H}_4\text{Cl}_2$														



# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	BS	XBS						XTH						XC						Temp. °C	XC	PRODUITS CHIMIQUES										
		Concentration %																		Co. %													
		20			60			100			20			60			100			20				60			100			20	60	100	
		[Color-coded grid]																		[Color-coded grid]													
Ethers R - O - R'	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Ethers R - O - R'											
Ethyl isopropyl ketone (CH <sub>3</sub> ) <sub>2</sub> - CH - CO - C <sub>2</sub> H <sub>5</sub>	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Ethyl isopropyl cétone (CH <sub>3</sub> ) <sub>2</sub> - CH - CO - C <sub>2</sub> H <sub>5</sub>											
Ethyl mercaptan C <sub>2</sub> H <sub>5</sub> - SH	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Ethyl mercaptan C <sub>2</sub> H <sub>5</sub> - SH											
Formic acid H - CO <sub>2</sub> H	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Formique (acide) H - CO <sub>2</sub> H											
Freons C <sub>n</sub> H <sub>x</sub> Cl <sub>y</sub> F <sub>z</sub>	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Frigènes (Fréons) C <sub>n</sub> H <sub>x</sub> Cl <sub>y</sub> F <sub>z</sub>											
Furane C <sub>4</sub> H <sub>4</sub> O	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Furanne C <sub>4</sub> H <sub>4</sub> O											
Gasoline	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Essence minérale											
Glycerin (Glycerol) CH <sub>2</sub> OH - CHO - CH <sub>2</sub> OH	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]						500 300 100	Glycérine (Glycérol) CH <sub>2</sub> OH - CHO - CH <sub>2</sub> OH											
Glycols R <sub>1</sub> - CH <sub>2</sub> OH - CH <sub>2</sub> OH - R <sub>2</sub>	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]						500 300 100	Glycols R <sub>1</sub> - CH <sub>2</sub> OH - CH <sub>2</sub> OH - R <sub>2</sub>											
Hydrazines 	250 150 50	[Grid]	[Grid]						[Grid]						[Grid]							Hydrazines 											

# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS

PRODUITS CHIMIQUES

	Temp. °C	Concentration %												Temp. °C	XC			
		BS			XBS			XTH			XC						Co. %	
		20	60	100	20	60	100	20	60	100	20	60	100					20
<b>Hydroxylamines</b> $\begin{array}{c} R \\   \\ N - OH \\   \\ R' \end{array}$	250	Red	Red	Red	Green	Green	Green	White	White	White	White	White	White	White		250	White	Hydroxylamines
<b>Imides</b> $\begin{array}{c} R - CO \\   \\ NH \\   \\ R' - CO \end{array}$	250	Red	Red	Red	Green	Green	Green	White	White	White	White	White	White	White		250	White	Imides
<b>Isopropanol (propanol 2)</b> $CH_3 - CHOH - CH_3$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Isopropanol Isopropylique (alcool) $CH_3 - CHOH - CH_3$
<b>Kerosine</b>	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Kérozène
<b>Ketones</b> $R - CO - R'$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Cétones $R - CO - R'$
<b>Lactic acid</b> $CH_3 - CHOH - CO_2H$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Lactique (acide) $CH_3 - CHOH - CO_2H$
<b>Maleic acid</b> $CO_2H - CH = CH - CO_2H$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Maléique (acide) $CO_2H - CH = CH - CO_2H$
<b>Mannitol</b> $CH_2OH - (CHOH)_4 - CH_2OH$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Mannitol $CH_2OH - (CHOH)_4 - CH_2OH$
<b>Mercaptans</b> $R - SH$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Mercaptans $R - SH$
<b>Methylene chloride</b> $CH_2Cl_2$	250	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		250	White	Méthylène (chlorure de) $CH_2Cl_2$

# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	BS	XBS	XTH	XC	Temp. °C	XC	PRODUITS CHIMIQUES										
		Concentration %								Co. %								
		20 60 100			20 60 100				20 60 100			20 60 100			20 60 100			
		20	60	100	20		60		100	20	60	100	20	60	100	20	60	100
Methanol CH <sub>3</sub> OH	250 150 50							Méthanol CH <sub>3</sub> OH										
Mineral oils	250 150 50					500 300 100		Huiles minérales										
Monochloroacetic acid ClCH <sub>2</sub> CO <sub>2</sub> H	250 150 50							Monochloroacétique (acide) ClCH <sub>2</sub> CO <sub>2</sub> H										
Monoethanolamine CH <sub>2</sub> OH - CH <sub>2</sub> - NH <sub>2</sub>	250 150 50							Monoéthanolamine CH <sub>2</sub> OH - CH <sub>2</sub> - NH <sub>2</sub>										
Nitriles R - C ≡ N	250 150 50							Nitriles R - C ≡ N										
Octyl alcohol CH <sub>3</sub> - (CH <sub>2</sub> ) <sub>6</sub> - CH <sub>2</sub> OH	250 150 50							Octanol CH <sub>3</sub> - (CH <sub>2</sub> ) <sub>6</sub> - CH <sub>2</sub> OH										
Oleic acid HC <sub>3</sub> - (CH <sub>2</sub> ) <sub>7</sub> - CH = CH - (CH <sub>2</sub> ) <sub>7</sub> - CO <sub>2</sub> H	250 150 50							Oléique (acide) HC <sub>3</sub> - (CH <sub>2</sub> ) <sub>7</sub> - CH = CH - (CH <sub>2</sub> ) <sub>7</sub> - CO <sub>2</sub> H										
Organic metal derivatives R <sub>n</sub> M	250 150 50							Dérives organo-métalliques R <sub>n</sub> M										
Organical acids R - CO <sub>2</sub> H	250 150 50							Acides organiques R - CO <sub>2</sub> H										
Oxalic acid CO <sub>2</sub> H - CO <sub>2</sub> H	250 150 50							Oxalique (acide) CO <sub>2</sub> H - CO <sub>2</sub> H										

# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	Qualities of GRAPHILOR® Grades des GRAPHILOR®												Temp. °C	XC	PRODUITS CHIMIQUES																																					
		BS			XBS			XTH			XC						Co. %																																				
		Concentration %																																																			
		20	60	100	20	60	100	20	60	100	20	60	100					20	60	100																																	
Paradichlorobenzene $C_6H_4Cl_2$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Paradichlorobenzène $C_6H_4Cl_2$
Paraldehyde $(CH_3 - CHO)_3$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Paraldéhyde $(CH_3 - CHO)_3$	
Phenols $\phi - (OH)_n$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Phénols $\phi - (OH)_n$		
Phosgene $COCl_2$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Phosgène $COCl_2$		
Pyrans $C_5H_{5-n}O - R_n$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Pyranes $C_5H_{5-n}O - R_n$			
Pyridin $C_5H_5N$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Pyridine $C_5H_5N$				
Pyrrol $C_4H_5N$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Pyrrole $C_4H_5N$				
Quinoline $C_8H_7N$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Quinoléine $C_8H_7N$				
Quinones $\phi O_2$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Quinones $\phi O_2$				
Saturated halogen derivatives $C_nH_aX_b (a + b = 2n + 2)$	250	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	150	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	50	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green		Dérivés halogénés saturés $C_nH_aX_b (a + b = 2n + 2)$					

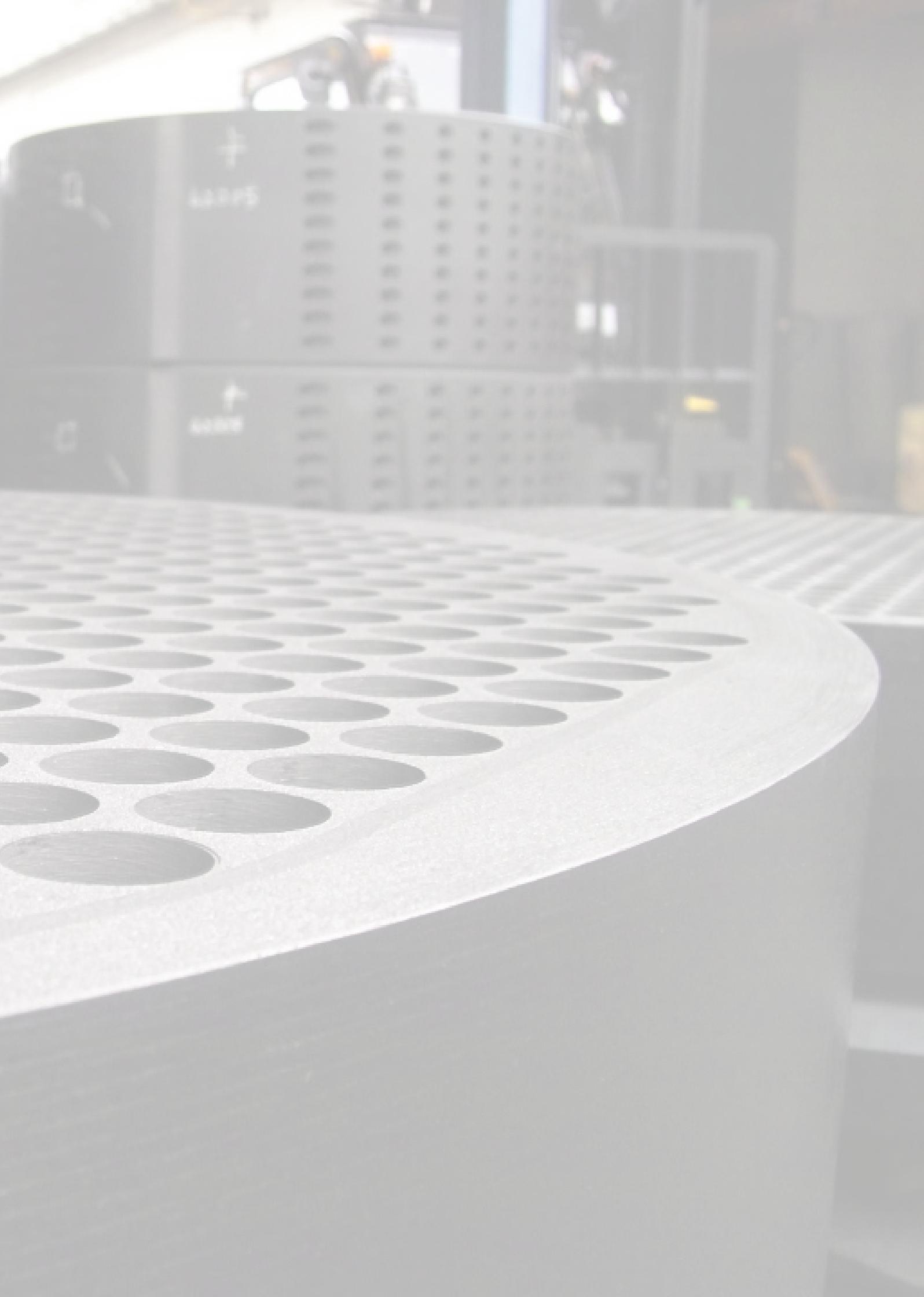
# ORGANIC COMPOUNDS

## COMPOSÉS ORGANIQUES

Qualities of GRAPHILOR®  
Grades des GRAPHILOR®

CHEMICALS	Temp. °C	BS	XBS						XTH						XC						Temp. °C	XC	PRODUITS CHIMIQUES																	
		Concentration %																		Co. %																				
		20			60			100			20			60			100			20				60			100			20			60			100				
Stearic acid $\text{CH}_3 - (\text{CH}_2)_{16} - \text{CO}_2\text{H}$	250	Red			Green			Red			Green			Red			Green			Green					Stéarique (acide) $\text{CH}_3 - (\text{CH}_2)_{16} - \text{CO}_2\text{H}$															
Saturated cyclo hydrocarbons	250	Red			Green			Red			Green			Red			Green			Green					Hydrocarbures cyclaniques															
Tartaric acid $\text{CO}_2\text{H} - \text{CHOH} - \text{CHOH} - \text{CO}_2\text{H}$	250	Red			Green			Red			Green			Red			Green			Green					Tartrique (acide) $\text{CO}_2\text{H} - \text{CHOH} - \text{CHOH} - \text{CO}_2\text{H}$															
Tetrachloroethane $\text{CHCl}_2 - \text{CHCl}_2$	250	Red			Green			Red			Green			Red			Green			Green					Tétrachloroéthane $\text{CHCl}_2 - \text{CHCl}_2$															
Tetrahydrofurane $\text{O} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2$	250	Red			White			Red			White			Red			White			White					Tétrahydrofurane (THF) $\text{O} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2$															
Thiophene $\text{C}_4\text{H}_4\text{S}$	250	Red			Yellow			Red			Yellow			Red			Yellow			Green					Thiophène $\text{C}_4\text{H}_4\text{S}$															
Toluene $\text{C}_6\text{H}_5 - \text{CH}_3$	250	Red			Green			Red			Green			Red			Green			Green					Toluène $\text{C}_6\text{H}_5 - \text{CH}_3$															
Trichloroethylene $\text{ClCH} = \text{CCl}_2$	250	Red			Yellow			Red			Yellow			Red			Yellow			Green					Trichloréthylène $\text{ClCH} = \text{CCl}_2$															
Triethanolamine $(\text{CH}_2\text{OH} - \text{CH}_2)_3\text{N}$	250	Red			Yellow			Red			Yellow			Red			Yellow			Green					Triéthanolamine $(\text{CH}_2\text{OH} - \text{CH}_2)_3\text{N}$															
Unsaturated cyclo hydrocarbons	250	Red			Green			Red			Green			Red			Green			Green					Hydrocarbures cycliques non saturés															







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