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Anhydride sulfureux formule chimique

Article from scienceamusante.net website. SGH06 SGH05 1 Physical properties[1] Molar mass: 64,064 g/mol Melting point: -75.5OC Boiling point: 10.05OC Appearance: at room temperature and pressure, sulphur dioxide is an unpleasant pungent smell gas. 2 Hazard classes and categories - Labelling according to CLP/SGH DANGEROUS H331: Toxic by inhalation. H314: Causes severe skin burns and severe eye damage. 3 Preparation This method allows you to prepare SO2 without the embarrassment of perfume, but it requires a small material that must be produced in advance based on hypodermic plastic syringes: Fill a small combustion tube with one of the following products of choice: Cover the selected powder with a small glass wool (not essential). Close the tube with a rubber cap pierced with a hypodermic needle. Attach 10 or 20 ml plastic syringes. Control the syringe to stretch out the tube containing the powder. Gently warm the tube into the ball flame. This will free up SO2 gassing that push the plunger. One of the following reactions occurs: Na2S2O5(s) → Na2SO3(s) - SO2(g) 2 NaHSO3(s) → Na2SO3(s) - SO2(g) - H2O The gas released gradually fills the plastic syringe.

When it is almost full of gas, remove it from the needle, place it on the table and replace the other syringe, which in turn fills up. No need to plug the tip of the syringe. The gas dissiled only very slowly from the syringe. Reaction 2 SO2(g) - O2(g) → SO3(g) Sulphur dioxide in the presence of water constitutes sulphuric acid: SO2(g) - H2O(l) → H2SO3(aq) 5 References, thanks to Maurice Cosandey for this contribution. Article from scienceamusante.net website. SGH05 SGH07 1 Physical properties[1][2] Molar mass: 80,063 g/mole Density: 1.90 Hard-shaped properties: Crystalline Shape Tfusion Tebullition Pvapeur at 25oC Appearance α 62.3oC? 73 mmHg Condensation of fine white needle from SO3(g) to T > 27oC during distillation. β condensation from SO3(g) to T > 27oC 34.5C 344 mmHg during distillation. γ of condensation ice up to T &t; 16.8C 44.5C 433 mmHg So3(g) Appearance of condensation ice up to T &t; 27oC. These three forms may be separated by separate distillation. The α form is stable; β and γ shapes are metastable. When SO3(s) is melted, some of it turns into γ, which then tends to turn into α during hardening. Explosions can occur during this time, due to the vapour pressure difference. For this reason, heating SO3(s) in glass containers should be avoided. When the SO3 dry anhydrous environment, it is not corrosive to metals. SO3(g) tuns distillation device intrusion fat (vaseline). Exposed to air, it emits thick white mist, quickly absorbing moisture from the air. Its reaction with water is explosive, providing sulfuric acid. 2 Hazard classes and categories - Marking According to CLP/SGH DANGEROUS H314: Causes severe skin burns and severe eye damage. H335: May irritate the airways. EUH014: Strongly reacts to water contact. 3 Synthesis See: Sulphur trioxide/synthesis 4 Used in the presence of sulphur trioxide in the presence of sulphuric acid in the presence of sulphuric acid: SO3(g) - H2O → H2SO4(aq) It can be used as soon as it is synthesized as a gas to concentrate an existing aqueous solution of sulphuric acid. 5 References - CRC Chemical and Physics Manual, David R. Lide, 88th edition (2007-2008). ISBN 978-0-8493-0488-0 - The Merck Index, 9th edition (1976), pp. 1163-1164 Sulphur Dioxide Structure. Identification Nom UICPA dioxyde de soufre Synonymes oxyde sulfureux,anhydride sulfureux,oxyde de soufre No CAS 7446-09-5 No ECHA 100.028.359 No CE 231-195-2 No RTECS WS4550000 PubChem 1119 ChEBI 18422 No E E220 FEMA 3039 SMILES O=S=O PubChem, vue 3D InChI InChI : vue 3D InChI=1/O2S/c1-3-2 InChIKey : RAHZWNWYVWXNFOC-UHFFFAOYAT Std. InChI : vue 3D InChI=1S/O2S/c1-3-2 Std. InChIKey : RAHZWNWYVWXNFOC-UHFFFAOYSA-N Apparence gaz incolore ou gaz comprimé liquéfié, d'odeur âcre[1] Propriétés chimiques Formule brute O2SSO2 Masse molaire[4] 64,064 ± 0,006 g/mol O 49,95 %, S 50,05 %, Moment dipolaire 1,63305 D[2] Diamètre moléculaire 0,382 nm[3] Propriétés physiques T° fusion -75.5 °C[1] T° ébullition -10 °C[1] Solubilité dans l'eau à 25 °C : 85 ml-l-1[1] Paramètre de solubilité δ 12.3 J1/2-cm-3/2 (25 °C)[3] Masse volumique 1,354 g-cm-3 à -30 °C 1,434 g-cm-3 à 0 °C1, 25 g-ml-1 to 25 C2.26 to 21 degrees Celsius compared to air equation[5]: '2.106/ 0.25842 (1' (1 - T / 430.75) 0. 2895) 2.106/0.25842 (1-T/430.75) - Volumetric mass of liquid in kmol-m-3 and temperature in kelvins, from 197.67 to 430.75 K. Estimated values: 1.36643 g-cm-3 at 25 degrees Celsius. T (K) T (°C) ρ (g-cm-3) 197.67 -75,48 25,298 1,62072 213,21 -59,94 24,73738 1,5848 220,98 -52,17 24,45137 1,56648 228,75 -44,4 24,16118 1,54789 236,52 -36,63 23,86653 1,52901 244,29 -28,86 23,56714 1,50983 252,06 -21,09 23,26267 1,49032 259,82 -13,33 22,95277 1,47047 267,59 -5,56 22,63702 1,45024 275,36 2,21 22,31497 1,42961 283,13 9,98 21,9861 1,40854 290,9 17,75 21,64982 1,387 298,67 25,52 21,30545 1,36493 306,44 33,29 20,9522 1,3423 314,21 41,06 20,58916 T (K) T (°C) ρ (g-cm-3) 321,98 48,83 20,21524 1,29509 329,75 56,6 19,82916 1,27036 337,52 64,37 19,42937 1,24474 345,29 72,14 19,01396 1,21813 353,06 79,91 18,58057 1,19036 360,83 87,68 18,12619 1,16125 368,6 95,45 17,64688 1,13055 376,36 103,21 17,13739 1,09791 384,13 110,98 16,59034 1,06286 391,9 118,75 15,99495 1,02472 399,67 126,52 15,33426 0,98239 407,44 134,29 14,57891 0,934 415,21 142,06 13,66939 0,87573 422,98 149,83 12,44258 0,79713 430,75 157,6 8,150 0,52213 T° d'auto-inflammation ininflammable Point d'éclair ininflammable Limites d'explosivité dans l'air non-explosif Pression de vapeur saturante -10 °C : 1,013 bar20 °C : 3,3 bar40 °C : 4,4 bar équation[5] : P v s = e x p (47.365 + − 4084.5 T + (− 3.6469) × l n (T) + (1.7990 E − 17) × T 6) {\displaystyle P_{vs}=exp(47.365+{\frac {-4084.5}{T}}+(-3.6469)times ln(T)+(1.7990E-17)times T^{6})} Pression en pascals et température en kelvins , No. 197.67 ledz 430.75 K. Aprein-ts vertabs: 400 148.62 Pa pie 25oC. T (K) T (°C) P (Pa) 197,67 -75,48 1 674,3 213,21 -59,94 5 731,51 220,98 -52,17 9 869,04 228,75 -44,4 16 308,09 236,52 -36,63 25 970,84 244,29 -28,86 40 005,5 252,06 -21,09 59 800,09 259,82 -13,33 86 988,29 267,59 -5,56 123 447,18 275,36 2,21 171 286,95 283,13 9,98 232 833,47 290,9 17,75 310 604,88 298,67 25,52 407 283,9 306,44 33,29 525 687,53 314,21 41,06 668 736,02 T (K) T (°C) P (Pa) 321,98 48,83 839 422,91 329,75 56,6 1 040 787,81 337,52 64,37 1 275 893,43 345,29 72,14 1 547 808,19 353,06 79,91 1 859 595,31 360,83 87,68 2 214 309,48 368,6 95,45 2 615 001,51 376,36 103,21 3 064 731,62 384,13 110,98 3 566 591,67 391,9 118,75 4 123 736,59 399,67 126,52 4 739 425,44 407,44 134,29 5 417 072,27 415,21 142,06 6 160 307,3 422,98 149,83 6 973 048,97 430,75 157,6 7 859 600 Point critique 78,9 bar , 157,45 C[6] Ska-as trums 213 ms-1 (0 C,1 atm)[7] Termo-mja SOgaz, 1 bar 248,21 J/mol K 'H0gaz -296,84 kJ-1[8] vapH 24,94 kJ-mol-1 (1 atm, 10,05C); 22,92 kJ-mol-1 (1 atm, 25 C)[9] Cp vien-dojums[5]: C P - (8.5743 E 4) - (5.7443) × T-display C_ P - (8.5743E4) (5.7443) -Times- T-ldruma termiska jauda J-km-1 K-1 a temperatara kelvinos no 197.67 fdz 350 K. 87,456 J-mol-1 K-1 pie 25 gredenam pác Celsija. T(K) T (C) Cp (Jk m o l × K) -displaystyle (J'kmol reizes K)) Cp (J k g × K) 'displaystyle' (Jk m o l × K) ' 197.67 '75.48 86 880 1 1 1 1 880 1 880 1 1 1 1 1 880 356 207 - 66.15 86 932 1,357 212 - 61.15 86 961 1,357 211 -56.15 86,990 1,358,223 -50.15 87 0 0 1,358,228 - 45.15 87 053 1,359,233 - 40.15 87 081 1,359 238 -35.15 87 110 1,360,243 -30.15 87 139 1 360 248 - 25.15 87 168 1 361,253 - 20.15 87 196 1,361,258 -15.15 87 225 1,362,263 -10.15 87 254 268 - 5.15 87 282 1.362 273 - 0.15 87 311 1,363 T(K) T(C) Cp (J k mo l × K) Cp (J k k g × K) 'displaystyle' (J'k-times K) 278 4.85 87 3 1,363,283 9.5 85 87 369 1 364 289 15,85 87 403 1,364 294 20,85 87 1 365,85, 299 25.85 87 461 1.365 304 30,85 87 489 1 366 309 35,85 87 51 8 1 366 314 40,85 87 547 1 367 319 45,85 87 575 1 367 50.85 5 87 604 1 367 329 55,85 87 633 1.368 334 60,85 87 662 1.368 339 65,85 87,690 1 ,369,344 70.85 87 719 1,369 350 76,85 87 750 1370 Electronic properties 1 ± .0> 0,001 eV [gas][10] Optical property refruit index N D 25 displaystyle 'textit 'n' [25] 1357[3] Precautions SGH[13] DangerH314, H331 , H314: Causes severe skin burns and eye damageH331: Toxic by inhalation SIMDUT[14] A, D1A, E, A: Absolute steam-crushing gas at 50 degrees Celsius - 900 kPaD1A: Very toxic material with serious immediate effectBate cargo transportation: Class 1 2.3E: Ko MaterialVeal cargo transportation: Class 8Divulation 1.0% according to ingredient disclosure list NFPA 704 030 Transport 268 1079 Code Kemler:268 : Toxic and corrousing gasesUNumUN:1079: SOUFRE DIOXYDEClass:2,3Leats:2,3: Toxic gases (corresponding to groups, marked with capitalization T, i.e. T, FF, TC, TO, TFC and OCD):8: Corrosive materials IARC Classification Group 3: Unclassified for its carcinogenicity to humans[12] Very toxic inhalation, death, sulphuric acid product in the lungs. Dangerous skin, corrosive, acid formation in contact with wet surfaces. Dangerous eyes, corry, acid formation in contact with wet surfaces. Ingestion Relatively low toxicity, unknown long-term effects. Ecotoxicology CL50 3,000 ppm 30 min (mouse, inhalation) Low odour threshold: 0.33 ppmhaut: 5 ppm[15] IS units and CnTP, unless otherwise specified. modify sulphur dioxide, formerly known as sulphur dioxide, is a chemical so2 compound. It is a colourless, dense and toxic gas, the inhalation of which is very irritating. It is released into the Earth's atmosphere by volcanoes and many industrial processes, as well as by burning some un sulphur coal, oils and natural gases. Oxidation of sulphur dioxide, most commonly in the presence of catalysts such as NO2 nitrogen dioxide, causes so3 sulphur trioxide and H2SO4 sulphuric acid, thus forming an acidic ingot. This causes inflammation of the respiratory system. Sulphur dioxide is used as a disinfectant, antiseptic, antibacterial, bleaching agent, gas catalyst for rock kernels in the Ashland process and as a food preservative, in particular dried fruit, in the manufacture of alcoholic beverages and wine production. Molecular structure Blue, binding electron orbits (ligament o). Pink, non-binding doublets or hybridization s.In green, orbital binding electrons (link 'y'). SO2 is a bent molecule in which the sulphur atom is in the oxidation state 4. From the point of view of molecular orbit theory, most valence electrons are involved in the S-O link. THE LENGTH OF SO2 S-O LINKS IS 143.1, less than the length of this link sulphur monoxide SO (148.1 pm). By analogy, O-O bonds in O3 ozone (127:8) are longer than oxygen O2 (120.7 pm). Similarly, the mean binding energy of SO2 (548 kJ mol-1) is higher than SO (524 kJ mol-1) and O3 (297 kJ mol-1) is lower than O2 (490 kJ mol-1). These considerations led chemists to conclude that sulphur dioxide SO bonds have a binding sequence of at least 2, unlike O-O o ozone bonds, which are 1,5 in order. Production Sulphur dioxide can be prepared: by burning elemental sulphur: S - O2 → SO2 by burning hydrogen sulphide or organosulated compounds: 2 H2S (g) - 3 O2 (g) → 2 H2O (g) - 2 SO2 (g), grilling sulphide minerals, e.g. pyrite, sphalerite or cinabre: 4 FeS2 (s) - 11 O2 (g) → 2 Fe2O3 (s) - 8 SO2 (g) , 2 ZnS (s) - 3 O2 g → 2 ZnO - 2 SO2 g , HgS(s) - O2 (g) → Hg (g) - SO2 (g) as the remaining product of cement production: Ca Heated O3 and CaSO4 is heated with coke and sand (silicon dioxide): 2 CaSO4(s) - 2 SiO2(s) - C (s)) → 2 CaSiO3(s) - 2 SO2 (g) - CO2 (g) , with hot sulphuric acid per Cu(s) copper chip - 2 H2SO4 (aq) → CuSO4 (aq) - SO2 (g) - 2 H2O (l). Sulphur dioxide dissolved in water is a bifunctional acid and is divided into three fractions according to the following hives: H2O - SO2 ⇌ displaystyle, righthleftarpoons, H, HSO3⇌ displaystyle, righthleftarpoons, 2 H. These fractions depend on thermodynamic constant and wine pH. So2 also released by mixing Na2S2O5 sodium metabisulfite with tartaric acid in water, an experiment suggested by some initiation boxes for chemical experiments. Physical properties, at steam pressure[18]: Temperature -103,15 C -98,15 C -93,15 C - 88,15 C -83,15 C -78,15 C -73,15 C -68,15 C -63,15 C -58,15 C -53,15 C -48,15 C -43,15 C -38,15°C,33 C -28.15 C -23.15 C -18.15 C Pressure 6.3 kPa 9.0 kPa 12.6 kPa 17.3 kPa 23.3 kPa 31.1 kPa 40.9 kPa 53.2 kPa 68.3 kPa *13.15 C -8.15 C -3.15 C 1.185 C 6.85 C 11.85 C 16.85 C 21.85 C 26.85 C Pressure 86.85 C 26.85 C Pressure 86.85. C.155 C 7 kPa 109 kPa 136 kPa 168 kPa 205 kPa 249 kPa 300 kPa 359 kPa 426 kPa In the industry, sulphur dioxide is mainly used for the production of sulphuric acid. The latter has countless uses and is the most widely used chemical alone or in combination with other substances such as SOCl2 tonyl chloride. Sulphur dioxide is obtained by burning sulphur or pyrites, then converting it into very pure sulphur trioxide (SO3), oxidised by air, catalysed with platinum or vanadium pentoxide. The resulting SO3 allows the direct production of highly concentrated sulphuric acid with simple hydration. Sulphur dioxide air pollution in industry mainly results from the consumption of fossil fuels. Indeed, sulphur is naturally contained in these fuels, and their combustion creates SO2. It can also be obtained in the metallurgical industry, in sulphuric acid production processes, in the conversion of wood pulp into paper, incineration of waste and incremental sulphur production. Coal combustion is the most important synthetic source and accounts for around 50% of annual global emissions. Oil is still 25-30%. The release of industrial sulphur dioxide may be reduced by the implementation of the separation of sulphur processes. Natural emissions of So2 volcanic origin in the environment. Natural SO2 is produced by volcanoes. Sulphur dioxide plays a cooling role for the planet because it serves as a core for aerosols with a fairly high albedo, i.e. reflecting the sun's rays by absorbing them, but this effect lasts only a few years when the CO2 effect reaches the century. The last major Pinatubo eruption is released into the air up to 5000 t SO2 (a total of 17 Mt, the largest amount ever measured by modern instruments[19]), affecting the ozone layer and changing the weather, significantly chilling the planet and changing rainfall for at least two years. However, it should be noted that in 1986 anthropogenic emissions from the United States alone (17.1 Mt) were comparable to those of the Pinatubo record-breaking emissions. Geo-rzetra initiators have intended SO2 as to stop global warming to the air condition of the planet. This means that it has been abolished, as it could also have dramatic consequences. When sulphur dioxide combines with water and atmospheric oxygen, which causes acidic rain, which disrupts or even destroys fragile ecosystems. Sulphur dioxide is one of the main causes of acidic rain with nitrogen dioxide. In addition, SO2 causes ocean acidification, putting the existence of plankton, limestone husked animals and coral reefs at risk. Plankton produces half of the earth's oxygen, which is needed by humans and animals. Estimates of atmospheric pollutants for past anthropogenic emissions and possible SO2 emission scenarios. Cofala et al. the estimate indicates the ideal impact of the so2 emission control policy (MFR: maximum possible reductions) and compliance with existing legislation (CLE). CPR (Representation Focus Pathways) uses CMIp5 simulations in the latest IPCC report (2013-2014) global SO2 emission trends (sectors) for the world and two fast-growing geoeconomic zones; So2 since 1990, Tg SO2. The scales vary according to the schedule: India - about 1/3 of China. Global Sulphur Dioxide Mapping on April 15, 2017. China, India, the United States, Canada and Europe seem to be the most polluted by SO2, which is a background pollutant and one of the causes of smog. It is distributed by winds and washed out by rain, which explains the very variable local concentration. Seasonal differences are also due to increased use of

heating and electricity in the cold season
Changes in the distribution of so2 anthropogenic sources between 2005 and 2010 (sensitive crisis period), with a 0.5 x0.5 increase in blue gas and red colour in the grid. Most massive emissions tend to slide from the northern hemisphere to the southern hemisphere Sulphur dioxide is one of the main pollutants in the atmosphere since the industrial revolution began because of large amounts of coal and then oil and gas burned by people, mostly in the northern hemisphere. This has a significant impact on public health. In addition, the concentration of sulphur dioxide in the air is divided into ecosystems: it is a chronic acidification of precipitation acids and soil and sediments contributes to the release of toxic metals (heavy metals, metalloids, radionuclides, etc.c) as well as their bioavailability. Sulphur dioxide emissions (in combination with nitrates) are precursors but they also contribute to the formation of atmospheric aerosols, which significantly alter the climate. Thanks in large part to the Environmental Protection Agency's Acid Rain Program, usa, which was one of the largest emitters, Record 33% reduction in emissions from 1983 – to 2002. , anhydritis. Most of the gypsum sold in Europe now comes from the deaction of combustion gases. In an industrial pot with a liquid bed, sulphur can be removed from coal during combustion by adding limestone as a material in the bed. This is called the combustion of a liquid bed. Sulphur can also be removed from certain fuels (oil, gas) even before combustion, which prevents so2 formation when fuel is incinerated and protects plants from corrying effects of sulphur. Claus process is used in processing plants to produce sulfur as a by-product. The Stretford process was also used to remove sulfur from fuel. Processes based on the oxidation response to iron oxide-based can finally be used, for example, in the Lo-Cat process. The mandatory use of deactivated fuel for certain applications has reduced air emissions since 2010, while exemptions granted to shipping and some sectors account for emissions that are still significant. Moreover, at the beginning of the 21st century, China and India remain the main producers of sulphur gas by burning large quantities of coal. Some fuel additives (e.g. calcium and magnesium carboxylate) may be used in marine engines to reduce emissions of sulphur dioxide into the atmosphere. In 2006, China was the world's largest polluter of sulphur dioxide, mainly producing consumer goods used in other countries (grey emissions). In 2005, China's emissions were estimated at 23.1 Mt, almost comparable to that of the US in 1980, and there was an increase (an increase of more than 27 % over five years from 2000 to 2005). Less suffering acid fallout from China, Japan decided in 2007 to help it develop clean energy. In the agri-food sector, it is used for the agri-food and agricultural business and principally: in wines, mainly rosé and white, in which tannins contain less tannins than red wines and are thus subject to greater oxidation. Sulphur dioxide reduces sulphur dioxide; vinegar; dried fruit; meat, jelly used for cold cuts, beer and other fermented beverages; confectionery, jams, sweetened fruit, jellies, marmalades, syrups, etc. In vinification Detailed article: Sulphur dioxide in winemaking. In wine, sulphur dioxide shall be free hydrated: H2SO3 or sulphuric acid, which combines with 2/3 of the wine ingredients. It's so2 total – SO2 free – SO2 total. Part of the free part ensures the role of the wine guard in relation to the micro-organisms of conversion. This part is called active SO2 or molecular SO2. SO2 can be combined with adehydes (etals), ketones (alpha-cetoglutaric acid) and certain sugars to ensure a stable compound. The body formed by a combination between sulphur dioxide and etal is adehyde-sulphuric acid or ethanolsulfonic acid, which is a strong acid, according to the following reaction: CH3CHO - NaH SO3 → CH3CHOH-O-SO2Na Depending on the dose, sulphuric acid inhibits or stops the development of yeast and bacteria that can be used for the mouthing of soft or sweet wines, or simply to ensure the preservation of the wine. During winemaking, the introduction of sulphur dioxide allows the choice of saccharomyces cerevisiae species of tear, which are more resistant to sulphur dioxide than other thy genus, such as Pichia anomala (syn. Hansenula), yeast. Wines have different methods of analysis for measuring SO2. Health and Regulation Sulphur dioxide or E220 by inhalation could pose a health risk in the following cases:[28] by inhalation; when swallowed in contact with skin and mucous membranes. During ingestion, organs with the highest oxidation activity are more likely to detoxify it through the urinary tract. The sustainability of SO2 derivatives may be considered with an excessive investment. For the user sulphites are very strong nucleophiles, which do not give acute toxicity, but can cause severe or severe allergies. It destroys vitamin B1 (or thiamin) to pH-6, can cause stomach irritation, avoid renal patients. For example, the WHO's prescribed ADI is 0.7 mg kg-1 per day. In most observations, symptoms appear a few minutes after ingestion of foods containing sulphites. Commission 201 SO2 would also play a role in the emergence of these intolerance reactions. In addition, people with a sharpness are much more sensitive than the average person. European regulations now provide that manufacturers must indicate Sulphites contains at concentrations above 100 mg l-1. In Canada, SAQ limits the sulphur dioxide concentration in the free state to 50 ppm and the combined sulphur dioxide to 300 ppm. In today's environment, where respect for the environment and organic food is increasingly being defended, wine producers and even consumers are now inclined to turn to organic wines with lower SO2 LEVELS, but whose use of SO2 is still permitted. It should be noted that compared to other countries of the world (Canada, Switzerland or the United States), the rules for including SO2 in the period of oeneming in Europe are much more restrictive or even stricter. Natural wine producers aim to minimise the addition of sulphur dioxide. The table below shows the significant differences in total SO2 concentrations in the following different countries: Table 1: Comparison of total sulphur dioxide from organic wines in Canada, the United States and Switzerland[32] SO2 mg/l NOP (USA) Produced from organic grapesSO2 total Bio Canada Bourgeon Switzerland Demeter SO2 total (5 years) Dry red (sugar &t; 5 g l-1) 100 100 120 70 white/dry rosé wine (sugar &t; 5 g l-1) 100 100 120 90 white/rosé (sugar &t; 5 g l-1) 100 150 170 70 White/pink (sugar &t; 5 g l-1) 100 150 170 130 Liquid wine (sugar &t; 5 g l-1) 100 250 170 80 Major Incident in France June 22, 20 After 0745 hours, a technical problem with valve closure at feyzin refinery (owned by Total Group) released a large sulphur dioxide cloud by the southwind over the Lyon metropolitan area. Several people were hospitalized and businesses evacuated. In the prefecture, in an effort to appease residents, recommended aerating homes and offices, giving instructions to those firefighters who advised people to stay in their homes and close their windows. Notes and references - a b c and DESICITY DESER, safety pages of the International Chemical Safety Program, accessed on May 9, 2009. David R. Lide, Handbook of Chemistry and Physics, Boca Raton, CRC, June 16, 2008, 89th ed., 2736 pp. (ISBN 978-1-4200-6679-1), 9-50. A b and c Yitzhak Marcus, Properties of Solvents, 4, England, John Wiley - Sons, 1999, p. 239. - Molar mass calculated from after Elementu atomsvari 2007. on www.chem.qmul.ac.uk. A b and c Robert H. Perry and Donald W. Green, Perry's Chemical Engineers' Handbook, ASV, McGraw-Hill, 1997, 7th ed., 2400 pp. (ISBN 0-07-049841-5), 2.-50. Lpp. On flexwareinc.com (consulted On 12 April 2010). W.M Haynes, 'mijas a fizikas rokasgr-ma, CRC, 2010-2011, 91st ed., 2610 pp. (ISBN 9781439820773), 14.-40. Lpp. Irvin Glassman and Richard A. 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See also About other projects in Wikimedia: Sulphur dioxide, for Wiktionnairean sulphur dioxide, for Wiktionnaire Related Articles by The Sulphite Soufre Rain Acid Oxysulfide Carbon Link External Environmental Institute. Atmosphere, Climate - UK Government's Environmental Information Programme. Chemical Portal Ecology This document comes from . .

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