Creation Date 2012/12/03
Last update 2022/09/16

Section 1. Identification of the substance / mixture and of the company / undertaking

1.1 Product identifier

Product name: ***Sulphuric acid, 98% solution***

Catalog Number: pure p.a. – 115750013, pure – 425749519, pH Euro - 655750002

Material form: liquid

Chemical formula: H_2SO_4 (molecular mass: 98,08)

1.2 Identified uses of the substance or mixture and uses advised against

Identified uses: analytical reagent, chemicals for synthesis, sulphuric acid production, used as intermediate by production of many organic and inorganic materials, feed production; used as catalyst, anhydrating agent, pH regulator, for cleaning and etching, used in electrolytic processes, material drainage, gases cleaning; accumulator production, conservation and recycling; applied for industrial cleaning materials; preparation of other sulphuric acid solutions, packaging, overpacking, mixing.

Uses advised against: other than mentioned above.

1.3 Details of the supplier of the safety data sheet

Company: FIRMA CHEMPUR
41-940 Piekary Śląskie ul. Jana Lortza 70a
tel.: (0-32) 287 20 52, (032) 767 88 91
fax: (0-32) 287 20 52,
e-mail: chempur@chempur.pl

Contact persons: Koloch Mirosław – 032 382 49 01 wewn.22 (czynny od 7.00 do 15.00) mkoloch@chempur.pl
Ganc Patrycja – 032 382 49 01 wewn.22 (czynny od 7.00 do 15.00) pganc@chempur.pl

1.4 Emergency telephone number

Emergency telephone number: fire brigade – 998 (112 from a mobile)

Section 2. Hazard identification

2.1 Classification of the substance or mixture

Skin Corr. 1A, H314

For the full text of the H-statements mentioned in this section, see section 16.

2.2 Label elements

Hazard pictograms	
Signal word	**DANGER**
Hazard statements	Causes severe skin burns and eye damage.
Precautionary statements	Wear protective gloves / protective clothing / eye protection / face protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. IF exposed or you feel unwell: Immediately call a POISON CENTER or doctor/physician.

2.3 Other hazards

PBT / vPvB assessment not available as chemical safety assessment isn't required / not conducted.

The substance /mixture components was included in the list established in accordance with Article 59(1) for having endocrine disrupting properties: doesn't classified

The substance /mixture components is/are a substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605: doesn't classified

Section 3. Composition / information of ingrediens

3.1 Substance

Product / content name	*Identifiers*	*Content [%]*	*Classification according to:*
			1272/2008

Sulphuric acid	WE: 231-639-5 CAS: 7664-93-9 Index: 016-020-00-8 REACH reg No: 01-2119458838-20-XXXX	C ≥ 15	Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %

For the full text of the H-statements mentioned in this section, see section 16

Section 4. First aid measures

4.1 Description of first aid measures

Eye contact	Immediately call in ophthalmologist. Immediately flush eyes with plenty of water with the eyelid held wide open for at least 15 minutes. Check for and remove any contact lenses.
After inhalation	Immediately call in physician. Move exposed person to fresh air. If it's suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth – to – mouth resuscitation. In unconscious, place in recovery position and get medical attention immediately. Maintain n open airway. Loosen tight clothing. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
After swallowing	Immediately call in physician. Wash out mouth with water. Move exposed person to fresh air. Keep person warm and rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if exposed person feels sick as vomiting may be dangerous. Don't induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit doesn't enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing.
After skin contact	Immediately call in physician. Wash skin thoroughly with plenty of water. Swab with polyethylene glycol. Remove contaminated clothing. Don't try to neutralize.

4.2 Most important symptoms and effects, both acute and delayed

Exposure:	*Acute health effects:*	*Excessive exposure causes:*
Eye contact	Causes serious eye burning and damage.	Risk of corneal damage. Risk of blindness!
After inhalation	No information available.	As steams / aerosols causes pain, lachrymation, cought, lungs and larynx swelling. Upper respiratory tract burnings.
After swallowing	No information available.	Throat, mouth and stomach burnings. Nausea, vomiting, diarrhea, shock.
After skin contact	Causes serious burnings.	Chemical and thermal burnings.

4.3 Indication of immediate medical attention and special treatment needed

Information for doctor	No information available.
Specific treatment	Not known.

Section 5. Fire – fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Recommended powder extinguishers from groups A, B or C.
Unsuitable extinguishing media	Don't use water jet.

5.2 Special hazards arising from the substance or mixture

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of sulphur oxides.

5.3 Advice for firefighters

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.
Further information: Prevent fire extinguishing water from contaminating surface water or the ground water system. Remove container from danger zone and cool with water.

Section 6. Accidential release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel:	Avoid substance contact. Don't breathe vapours, aerosols. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
Advice for emergency responders:	Protective equipment see section 8.

6.2 Environmental precautions

Don't empty into drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind and pump off spills. Observe possible material restrictions. Take up with liquid – absorbent material. Recommended acid neutralizing material, such as calcium or sodium carbonate, minced limestone, dolomite. Dispose of properly. Clean up affected area. May cause fire even when dry.

6.4 Reference to other sections

Protective equipment see section 8.
Indications abort waste treatment see section 13.

Section 7. Handling and storage

7.1 Precautions for safe handling

Observe label precautions.

Advice on no protection against fire and explosion: Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed In a dry and well – ventilated place. Keep away from heat and source of ignition. Storage temperature: + 2˚C to + 25˚C.

7.3 Specific end uses

Recomendations	unavailable
Specyfic solution for industry	unavailable

Section 8. Exposure controls / personal protection

8.1 Control parameters

NDS	0,05 mg/m^3
NDSCh	-

DNEL	oral		inhalation		dermal	
	Acute toxicity	*Chronic toxicity*	*Acute toxicity*	*Chronic toxicity*	*Acute toxicity*	*Chronic toxicity*
employee	-	-	-	0,1 mg/m^3/15min 0,05 mg/m^3/8h	-	-

PNEC	water		sediment		soil	other
	fresh	*marine*	*fresh water*	*marine water*		*activated sludge*
	0,0025 mg/dm^3	0,00025 mg/dm^3	-	-	-	8,8 mg/dm^3

8.2 Exposure controls

8.2.1 Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

8.2.2 Indidual protection measures

Protective clothing Leeds to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye / face protection		Safety glasses.
Skin protection	*Hand protection*	Chemical – resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary
	Body protective	Flame retardant antistatic protective clothing.
	Other protective enquipment	Wash hands after working with substance.
Respiratory protection		Required when vapours / aerosols are generated., recommended filter type E/ABEK

8.2.3 Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	*Physical state*	liquid	*Vapour pressure*	145,8 hPa (180˚C)
	colour	colourless	*Relative vapour density*	3,4
Odour		stinging	*Relative density*	ok. 1,8361 g/cm^3
Particle characteristics		unavailable	*Water solubility*	miscible
pH		0,3 (0,49 g/dm^3/25˚C)	*Partition coefficient: n-octanol / water*	unavailable
Melting point		- 1,11 do 3˚C	*Autoignition temperature*	388˚C
Boiling point / boiling range		ok. 310˚C	*Decomposition temperature*	unavailable
Flash point		closed crucible: lack	*Viscosity, dynamic*	22,5 mPa· s (20˚C)
Explossion limit	*lower*	unavailable		

upper unavailable

9.2 Other data

9.2.1 Information with regard to physical hazard classes:

a) Explosives: not applicable

b) Flammable liquids: not applicable

c) Flammable solids: not applicable

d) Oxidising liquids: not applicable

e) Oxidizing solids: not applicable

f) Corrosive to metals: not applicable

Section 10. Stability and reactivity

10.1 Reactivity

The product is stable in the normal conditions.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions, risk of explosion, and / or of toxic gas formation exists with the following: water, alkali metals, alkali compounds, ammonia, aldehydes, acetonitryle, alkaline earth metals, acids, alkalines, alkali earth compounds, metals, metal alloys, phosphorus, hydrides, halogen – halogen compounds, oxuhalogenic compounds, permanganates, nitrates, carbides, combustible substances, organic solvents, acetylidene, nitriles, organic nitro compounds, anilines, peroxides, nitrides, lithium silicide, iron (III) compounds, bromates, chlorates, amines, perchlorates, hydrogen peroxides.

10.4 Conditions to avoid

Strong heating, water / humidity.

10.5 Incompatible materials

Animal / vegetable tissues, metals. Contact with metals liberates hydrogen gas.

10.6 Hazardous decomposition products

In the event of fire may cause evolution of sulphur oxides.

Section 11. Toxicological information's

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute Toxicity

Sulphuric acid	LD50	oral	rat	2140 mg/kg
	LC50	inhalation	rat	375 mg/m^3/4h

The mixture is not classified as acute oral, dermal and inhalation toxicity.

Corrosive / irritant effects for skin	Causes serious skin burnings.
Serious eye damage / irritating effects for eyes	Causes serious burnings and damage.
Respiratory tract and skin sensitization	Unavailable.
Genotoxicity in vitro	Unavailable.
Carcinogenicity	Unavailable.
Reproductive toxicity	Unavailable.
Aspiration hazard	No aspiration toxicity classification.

Targed organs toxicity	*category*	*exposure tract*	*expose organs*
Single exposure	unavailable	Not known.	unavailable
Repeated exposure	unavailable	Not known.	unavailable

Information about possible exposure tracts

Eye contact	Causes serious burnings and eye damage.
Skin contact	Causes serious skin burnings.
Inhalation	Unavailable.
Ingestion	Unavailable.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties: not applicable

11.2.2 Other information:

Strongly corrosive substance. After a latency period of several weeks possibility pyloric sthenosis.

Section 12. Ecological information's

12.1 Toxicity

Product / ingredient name			*Species*		*Exposure*
Sulphuric acid	-	16 - 28 mg/dm^3	fish	Lepomis macrochirus	96 hours
	LC10 / EC10	0,025 mg/dm^3			-
	EC50	> 100 mg/dm^3	daphnia	Daphnia magna	48 hours
	LC10 / EC10	0,15 mg/dm^3			-
	EC50	> 100 mg/dm^3	algae	Desmodesmus subspicatus	72 hours
	LC10 / EC10	100 mg/dm^3			-

12.2 Persistence and degradability

Unavailable.

12.3 Bioaccumulative potential

Unavailable.

12.4 Mobility in soil

Unlimited solubility In water.

12.5 Results of PBT and vPvB assessment

PBT / vPvB assessment isn't available as chemical safety assessment isn't required / conducted.

12.6 Endocrine disrupting properties

Not applicable.

12.7 Other adverse effects

Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Doesn't cause biological oxygen deficit. Hazard for drinking water supplies. Don't allow to run into surface waters, wastewaters or soil.

Section 13. Disposal consideraions

Chempur product packaging must be disposed of In compliance with the country – specific regulations or must be passed to a packaging return system. Handle contaminated packing in the same way as the substrate itself. Always contact a permitted waste disposal to assure compliance with all current local, state and federal regulations.

Waste code: 06 01 01* Sulphuric (VI) and sulphuric (IV) acid

Recommended way of waste disposal – thermal conversion.

Section 14. Transport information's

		ADR / RID	*ADN / ADNR*	*IMDG*	*IATA*
14.1	**UN Number (ID No)**	UN 1830			
14.2	**UN transport name**	SULPHURIC ACID with than more 51% acid			
14.3	**Risk classes in transport**	8 	8 	8 	8 
14.4	**Packaging group**	II	II	II	II
14.5	**Environmental risk**	no	no	no	no
14.6	**Specially precautions for users**	unavailable	unavailable	unavailable	unavailable

14.7 Maritime transport in bulk according to IMO instruments

Unavailable.

Section 15. Regulatory information's

15.1 Safety, heath and environmental regulations / legislation specific for the substance or mixture

Regulation:	*Concerns:*	*Information:*
According to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878 EU	Annex XIV – SVHC substances	constituents not mentioned In this annex
	Limitations	only for proffesional aplications
REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of		Contains a restricted explosives prekursor. Acquisition, introduction, possession or use of that restricted explosives precursor by members of the general public is subject to a restriction as set out in Article 5 (1) and (3) REGULATION

20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013.		2019/1148. Contains a regulated explosives prekursor. Acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9 REGULATION 2019/1148.

- Rozporządzenie Ministra Zdrowia z dnia 16 września 2016 r. w sprawie bezpieczeństwa i higieny pracy związanej z występowaniem w miejscu pracy czynników chemicznych (tj. Dz. U. 2016, poz. 1488)
- Rozporządzenie Ministra Rodziny, Pracy i Polityki Społecznej z dnia 12 czerwca 2018 roku, w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy z późniejszymi zmianami.
- Rozporządzenie Komisji (UE) nr 260/2014 z dnia 24 stycznia 2014 roku zmieniające , w celu dostosowania do postępu technicznego, rozporządzenie (WE) nr 440/2008 ustalające metody badań zgodnie z rozporządzeniem (WE) nr 1907/2006 Parlamentu Europejskiego i Rady w sprawie rejestracji, oceny, udzielania zezwoleń i stosowanych ograniczeń w zakresie chemikaliów (REACH). (L 81/1)
- Ustawa z dnia 19 sierpnia 2011 r. o przewozie towarów niebezpiecznych z późniejszymi zmianami.
- Ustawa z dnia 13 czerwca 2013 r. o gospodarce opakowaniami i odpadami opakowaniowymi z późniejszymi zmianami.
- Ustawa z dnia 14 grudnia 2012 r. o odpadach z późniejszymi zmianami.
- Ustawa z dnia 25 lutego 2011 roku o substancjach chemicznych i ich mieszaninach z późniejszymi zmianami.
- Rozporządzenie Ministra Zdrowia z dnia 2 lutego 2011 r. w sprawie badań i pomiarów czynników szkodliwych dla zdrowia w środowisku pracy z późniejszymi zmianami.
- Rozporządzenie Parlamentu Europejskiego i Rady (WE) nr 1272/2008 z dnia 16 grudnia 2008 roku w sprawie klasyfikacji, oznakowania i pakowania substancji i mieszanin, zmieniające i uchylające dyrektywy 67/548/EWG i 1999/45/WE oraz zmieniające rozporządzenie (WE) nr 1907/2006 z późniejszymi zmianami.
- Rozporządzenie (WE) nr 1907/2006 Parlamentu Europejskiego i Rady z dnia 18 grudnia 2006 r. w sprawie rejestracji, oceny, udzielania zezwoleń i stosowanych ograniczeń w zakresie chemikaliów (REACH), utworzenia Europejskiej Agencji Chemikaliów, zmieniające dyrektywę 1999/45/WE oraz uchylające rozporządzenie Rady (EWG) nr 793/93 i rozporządzenie Komisji (WE) nr 1488/94, jak również dyrektywę Rady 76/769/EWG i dyrektywy Komisji 91/155/EWG, 93/67/EWG, 93/105/WE i 2000/21/WE z późniejszymi zmianami.
- Ustawa z dnia 27 kwietnia 2001 r. Prawo ochrony środowiska z późniejszymi zmianami.

15.1 Chemical safety assessment

Chemical safety assessment was made.

Other information's

Updates against previous version:

Actualization – 2.3, 9.1, 9.2, 11.1, 11.2, 12.6, 12.7, 14.1, 14.7,15.1

Version: 6

Full text of H-statements referred to under section 2 and 3

Skin Corr. 1A, H314	Causes severe skin burns and eye damage.
Skin Irrit. 2; H315	Causes skin irritation.
Eye Irrit. 2; H319	Causes serious eye irritation.

Information's placed above are take as correct, but not comprehensive and should be used only as indicative information's.

CHEMPUR Company doesn't take responsibility for any damages caused by work or contact with this substance.

This MSDS is developed on base of MSDS's delivered by product and/or internet data bases and standing rules on dangerous substances and chemical mixtures.

MSDS is property of CHEMPUR Company with department in Piekary Śląskie (Poland) and describes only product marked on label CHEMPUR sign and Company name.

Training:

People taking care of this material should be trained in procedures of safety work with this substance.

Literature positions and other sources used to prepare this MSDS:

- 2004 Zasady postępowania ratowniczego – opracowanie na podstawie oryginału angielskiego: The Emergency Response Guide Book. Wydawnictwo FIREX 2004.
- Dangerous Goods Emergency Action Code List 2004. HM Fire Service Inspectorate 2004.
- Genium Publishing Corporation. Genium's Handbook of Safety, Health and Environmental Data for Common Hazardous Substances. New York, Mc Graw Hill 1999.
- Grzegorczyk K., Hancyk B., Buchcar R.: Towary niebezpieczne w transporcie drogowym ADR 2005 – 2007. Warszawa, Wydawnictwo Buch-Car 2005.
- Hayes W.J., Laws R.E.: Handbook of Pesticide Toxicology. Vol 1-3. San Diego, CA, Academic Press, Inc. 1991.
- Lewis R.J.: Sax's Dangerous Properties of Industrial Materials. New York, Wiley 2000.
- MICROMEDEX(R) Healthcare Series. Vol. 118, 12/2003.
- MICROMEDEX(R) Healthcare Series. Vol. 124, 2005.

- Patty's Industrial Hygiene and Toxicology. Ed. R.L. Harris. New York, Wiley 2000.
- PKP Cargo S.A. Regulamin dla międzynarodowego przewozu kolejami towarów niebezpiecznych (RID) – obowiązuje od 1 stycznia 2005 r., zastępuje przepisy z dnia 1 stycznia 2003 r., ze zmianami z 2004 r.
- Poisoning and Drug Overdose. Ed. K.R. Olson. Norwalk, Appleton and Lange 1990.
- The Dictionary of Substances and their Effects. Ed. M.L. Richardson, S. Gangolli. Royal Society of Chemistry 1992.
- Umowa europejska dotycząca międzynarodowego przewozu towarów niebezpiecznych ADR obowiązująca od dnia 1 stycznia 2005 r. Opracowana na podstawie oryginału angielskiego. Wydawnictwo ONZ nr ECE/TRANS/175; wraz z poprawkami zawartymi w dokumentach nr ECE/TRANS/175 Corr. 1 i 2.
- Advancing Science. Aldrich 2005-2006 [CD-ROM].
- BIG Database v. 12.0 (baza danych o materiałach niebezpiecznych) BIG – Brandweerinformatiecentrum, Geel-Belgium [CD-ROM, ostatnia aktualizacja 24.02.2005].
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- EINECS. Plus 2005. Office for Official Publications 2005 [CD-ROM].
- Tomes Plus. Vol. 64, 2005 [CD-ROM].
- Integrated Risk Information System. U.S. Environmental Protection Agency [on-line].
- International Labour Organization. International Chemical Safety Cards 2004. http://www.ilo.org/public/.
- PAN Pesticides Database – Chemical toxicity studies on aquatic organisms. http://www.pesticideinfo.org/List_ChemicalsAlpha.jsp.
- TOXNET Hazardous Substances Data Bank (HSDB) http://toxnet.nlm.nih.gov.
- International Agency for Research on Cancer. http://www.iarc.fr.
- Agency for Toxic Substances and Disease Registry. http://www.atsdr.cdc.gov.
- International Programme on Chemical Safety INCHEM. http://www.inchem.org.
- MSDS Software, Solutions and Services. http://www.online-msds.com.
- European Chemicals Bureau. http://ecb.jrc.it/classification-labelling.
- ChemFinder.Com. Database & Internet Research. http://chemfinder.cambridgesoft.com.
- Biuro do spraw Substancji i Preparatów Chemicznych. http://www.chemikalia.mz.gov.pl.
- European Chemicals Bureau. http://ecb.jrc.it/new-chemicals.