essedielle
ENOLOGIALIMENTAZIONE

SISTEMA DI GESTIONE PER LA SICUREZZA ALIMENTARE
CQY CERTIQUALITY
UNI EN ISO 22000:2018

OPERATORE CONTROLLATO
S 1262
CERTIFICATO ICEA BIOLOGICO

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

SAFETY DATA SHEET

SULFURE DIOXIDE

Revision No. 0, February 2024; Complies with Reg (EU) 2020/878

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE MANIFACTURING COMPANY

1.1 Product identification
Chemical name: Sulphur Dioxide
Trade names and synonyms:
CAS Number 7446-09-5
EC Number 231-195-2
EU Index Number 016-011-00-9
(**no.REACH)** 01-2119485028-34

1.2 Relevant identified uses of the substance/mixture and uses not recommended
Food additive E220, for professional use only

1.3 Information about the supplier of the safety data sheet
essedielle srl
S.P. 538 km. 6,950 - CALDARI
66026 ORTONA (CH)
ITALY
Phone: +39 (0) 85 9031315
Qualified persons responsible for the safety data sheet: laboratorio@essedielle.com

1.4 Emergency telephone number: essedielle srl +39 (0) 85 9031315 – 0039 3668134126
Poison Control Center
S.S. Annunziata Hospital – Chieti +39 0871 1551219

2. HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture
Criteria EC Regulation 1272/2008 (CLP):
Danger, Eye Dam. 1, Causes severe eye injury.
EUH031 Contact with acids releases a toxic gas.
Physicochemical effects harmful to human health and the environment: no other hazards

2.2 Label elements
Labeling according to EC Regulation No. 1272/2008 [CLP] Extra labeling to be shown Extra classification(s) to be shown
Hazard pictograms (CLP):

Warning: Danger

Symbols:

Hazardous ingredients: Sulfur dioxide (E220)
Hazard Statements: H314 - Causes severe skin burns and serious eye injury.
H318 - Causes severe eye injury.
Cautionary Statements: Wear protective gloves/protective clothing/eye/face protection.
P302 - IF ON SKIN (or hair): remove all contaminated clothing immediately. Rinse skin or take a shower.

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P301 + P330 + P331 - IF INGESTION: rinse mouth. DO NOT induce vomiting.
P304 + P340 - IF INHALED: transport the casualty to fresh air and keep at rest in a position conducive to breathing.
P305 + P351 + P338 - IF IN EYES: rinse thoroughly for several minutes. Remove any contact lenses if it is comfortable to do so. Continue to rinse.

2.2 Hazardous components for labeling: sulfur dioxide

3. COMPOSITION/INGREDIENT INFORMATION

3.1 Trade names and synonyms: sulfur dioxide (E220) Aqueous solution titrated to 50 g/lt.

Substance	**Concentration**	**Classification**	**Classification according to the Regulation (EC) no. 1272/2008 [CLP]**
Sulfur Dioxide	>90%	(CAS Number) 7446-09-5 (EC Number) 231-195-2 (EU Index Number) 016-011-00-9 (REACH No.) 01-2119485028-34	Press. Gas (Liq.), H280 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Eye Dam. 1/H318

4. FIRST AID MEASURES

4.1 Description first aid measures
General first aid measures: if in doubt or if symptoms persist, seek medical attention. Remove the victim from the contaminated area. Remove contaminated clothing immediately. Do not administer anything orally to an unconscious person. Emergency eyewash fountains and safety showers should be available near any place where there is a risk of exposure.
In case of inhalation: move the injured person to fresh air. If breathing is difficult give oxygen or practice artificial respiration.
In case of skin contact: remove contaminated clothing immediately and wash immediately and thoroughly with water. Immediate medical attention is needed, as untreated burns can cause wounds that are unlikely to heal.
In case of eye contact: rinse immediately with clean water for 10-15 minutes. Remove any contact lenses if it is convenient to do so. Continue to rinse. Consult an ophthalmologist.
In case of ingestion: Rinse your mouth and drink plenty. Call a doctor immediately. Swallowing risks danger of perforation of esophagus and stomach (corrosive)
Contact an ANTIVENITION CENTER or a doctor immediately.

4.2 Main symptoms and effects, both acute and delayed
Symptoms/effects: Further detailed information: See section 11.
Symptoms/effects on inhalation: May irritate respiratory tract.
Symptoms/effects on skin contact: May cause skin irritation/dermatitis.
Symptoms/effects on eye contact: Irritation of eyes. Severe eye damage.
Symptoms/effects on ingestion: May cause burning or irritation of the oral cavity, throat and intestinal spasms.

4.3 Indication of any immediate medical attention and special treatment needed
Symptomatic treatment. Seek medical attention, even in the absence of immediate effects.

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5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media
Suitable extinguishing media
Water spray. Carbon dioxide (CO2).
Extinguishing media that should not be used for safety reasons
Water jet.

5.2 Special hazards from combustion products
Do not inhale the gases produced by the explosion and combustion. Sulfur Dioxide.

5.3 Recommendations for firefighters
Recommendations for firefighters Employ appropriate respiratory equipment. Collect contaminated water used to extinguish the fire separately. Do not discharge it into the sewer system. If feasible from a safety standpoint, move undamaged containers from the immediate danger area.

5.4 Other information
Water used in firefighting that is contaminated by the product should be disposed of in accordance with local regulations.

6. MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions, personal protective equipment and emergency procedures
Wear personal protective equipment. Move people to a safe place. Refer to the protective measures set out in section 7 and 8.

6.2 Environmental precautions
Prevent penetration into soil/subsoil. Prevent runoff into surface water or sewage system. Retain contaminated wash water and dispose of it. In case of leakage or penetration into waterways, soil or sewage system, inform the responsible authorities. Suitable material for collection: absorbent material, organic, sand.

6.3 Methods and materials for containment and cleanup
Cover drains and collect with absorbent substances (sand, kieselguhr, acid binder, universal binder).

6.4 Reference to other sections
See also section 8 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not breathe vapors. See also section 8 below. Do not use empty containers before they have been cleaned. Make sure there are no remaining incompatible materials in the containers before transfer operations. Contaminated clothing must be replaced before entering dining areas. Do not eat or drink while working. Also refer to section 8 for recommended protective equipment.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Store in a dry area. Keep away from food, drink and feed.
Incompatible materials: keep away from acids. Keep away from oxidizing agents.
Indication for premises: properly ventilated premises. All substances that emit toxic gases or vapors should be kept in appropriate cabinets that allow them to escape.

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7.3 Specific end uses
No specific use

8. EXPOSURE CONTROL/INDIVIDUAL PROTECTION

8.1 Control parameters
National limit values
Occupational exposure values (workplace exposure limits)

Country	Name of the chemical agent	CAS number	Identificator	8 hours [ppm]	8 hours [mg/m³]	Short - term [ppm]	Short - term [mg/m³]	Source
EU	sulphur dioxide	7446-09-5	IOELV	0.5	1.3	1	2.7	2017/164/UE

Notation
8 hours Time-weighted average (long-term exposure limit): measured or calculated relative to a period reference period of eight hours, as a weighted average (unless otherwise noted)
short term
Short-time exposure limit (short-term exposure level): limit value above which exposure should not exposure should occur and which refers to a 15-minute period (unless otherwise stated)
VM Maximum value beyond which exposure should not occur (ceiling value)

Relevant DNELs of the mixture components						
Name of the substance	**N° CAS**	**End-Point**	**Threshold Level**	**Protection target, route of exposure**	**Intended for**	**Exposure Time**
sulphur dioxide	7446-09-5	DNEL	1.3 mg/m³	Human, by inhalation	Industrial Worker	Chronic - local effects
sulphur dioxide	7446-09-5	DNEL	2.7 mg/m³	Human, by inhalation	Industrial Worker	Acute - Local effects

8.2 Exposure controls
Eye protection
Use safety visors with side protection. Protect the face

Skin protection
Wear clothing that provides full protection for the skin, rubber,
PVC or viton.

Hand protection
Use suitable gloves. Chemical protective gloves, as tested according to EN 374, are appropriate. Check for tightness/water resistance before use. For special uses, it is recommended to check the chemical resistance of the above protective gloves together with the glove supplier. Times are approximate values from measurements at 22°C and permanent contact. Increased temperatures due to heated substances, body heat, etc. And a reduction in effective layer thickness by stretching can lead to a considerable reduction in penetration time. If in doubt, contact the manufacturer. With a layer thickness of about 1.5 times larger/smaller, the corresponding breakthrough time is doubled/ halved. The data apply only to the pure substance. When transferred to mixtures of substances, they can only be considered as a guide.
- type of material
Butyl elastic rubber
- material thickness
0.5 mm

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- permeation time of glove material
>480 minutes (permeation: level 6)

Respiratory protection
Combined filtering device (DIN EN 141).
Mask with "E" filter, yellow color

Thermal hazards
None

Environmental exposure controls
Keep away from drains, surface water and groundwater.

Suitable engineering controls
None

9. PHISICAL AND CHEMICAL PROPERTIES

9.1 Information on general physical and chemical properties

Appearance	Liquid
Color	Colorless
Odor	Pungent, typical
Olfactory threshold	Not determined
Ph value sol 5%	1
Density	1.46 g/cm3 (-75.5°C); 1.43 g/cm3 (0°C)
CHANGE OF STATE	
Melting point/interval	Not determined
Boiling point/interval	Not determined
Flash point	Not determined
Flammability (solids, gases)	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Explosive properties	Not determined
Lower flammability limits	Not determined
Upper flammability limits	Not determined
Vapor pressure at 20°C	Not determined
Density at 20°C	Not determined
Relative density	1.20 Kg /dm^3
Vapor density at 20°C	Not determined
Evaporation rate	Not determined
Solubility in/Miscibility with water	22.86 g/100g (0°C, 101.3 KPa); 11.4 g/100g (20°C, 101.3 KPa)
Specific rotation	Not determined
Partition coefficient: n-octanol/water	Not determined
Dynamic Viscosity at 20 °C	Not determined
Kinematic Viscosity	Not determined

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10. STABILITY AND RESPONSIVENESS

10.1 Reactivity
Under normal conditions, it is completely stable to air and light**.**

10.2 Chemical stability
Under normal conditions, it is completely stable to air and light.

10.3 Possibility of hazardous reactions
Possible intense with: reducing agents, acids.

10.4 Conditions to avoid
Stable under normal conditions.

10.5 Incompatible materials
None.

10.6 Hazardous decomposition products
None.

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes defined in Regulation (EC) No. 1272/2008.
No experimental data exist for the mixture.
Classification procedure
The method of classification of the mixture is based on its components (additivity formula).
Classification according to GHS (1272/2008/EC, CLP)
Acute toxicity
Estimated acute toxicity (ATE) of mixture components
Substance name: Sulfur dioxide
CAS No.: 7446-09-5
Skin corrosion/irritation: causes severe skin burns and severe eye injury.
Serious eye injury/eye irritation: causes severe eye injury.
Respiratory tract or skin sensitization: not classified as a respiratory tract or skin sensitizer.

12. ECOLOGICAL INFORMATION

Ecology - general: Harmful to aquatic organisms.
Sulfur dioxide (E220) (7446-09-5).
LC50 fish 1 5000 ppm Salvenus spec.
LC50 fish 2 3200 µg/l Atlantic menhaden, Brevoortia tyrannus

Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Not classified

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
PRODUCT
Dispose of residues in accordance with current regulations through authorized disposers.
Recover if possible. Operate in accordance with current local and national regulations.

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CONTAMINATED PACKAGING
Empty as best as possible by fully opening them. Dispose of in accordance with constituent material

13.2 HP Phrases
None

14. TRANSPORTATION INFORMATION

14.1 UN number or ID number
ADR/RID/ADN: ONU 3264
IMDG-Code: UN 3264
ICAO-TI: ONU 3264

14.2 UN proper shipping name
ADR/RID/ADN: CORROSIVE INORGANIC LIQUID, ACID,
N/A.
IMDG-Code: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
ICAO-TI: Corrosive liquid, acidic, inorganic, n.o.s.

14.3 Transport hazard classes
ADR/RID/ADN: 8
IMDG-Code: 8
ICAO-TI: 8

14.4 Packing Group
ADR/RID/ADN: II
IMDG-Code: II
ICAO-TI: II

14.5 Environmental Hazards
Not dangerous for the environment according to the regulations concerning dangerous goods

14.6 Special precautions for users
Provisions concerning dangerous goods (ADR) which must be followed within the company.

14.7 Maritime transport in bulk in accordance with IMO acts
Bulk transport is not intended to be carried out.

14.8 Information for each of the UN Model Regulations
Transport by road, rail or waterway of dangerous goods (ADR/RID/ADN) - Additional information

Official designation: CORROSIVE INORGANIC LIQUID, ACID, N.O.S.
Particulars in the transport document: UN3264, CORROSIVE INORGANIC LIQUID, ACID, N.O.S., 8, II, (E)
Classification code: C1 Hazard label(s): 8

Special Provisions (SD): 274

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Excepted quantities (EQ): E1
Limited Quantity (LQ): 5 L
Transport category (CT): 3
Tunnel restriction code (CTG): E
Hazard identification number: 80

International Maritime Dangerous Goods Code (IMDG) - Additional Information
Official designation: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Indication in shipper's declaration (shipper's declaration): UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Marine pollutant: -
Hazard label(s): 8

Special Provisions (SD): 223, 274
Exempt quantities (EQ): E1
Limited Quantity (LQ): 5 L
EmS: F-A. S-B
Stowage category: A
Segregation group: 1- Acids

International Civil Aviation Organization (ICAO-IATA/DGR) - Supplementary Information
Official designation: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Indication in shipper's declaration (shipper's declaration): UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Hazard label(s): 8

Special Provisions (SD): A3
Excepted quantities (EQ): E1
Limited quantities (LQ): 1 L

15. REGULATORY INFORMATION

15.1 Health, safety and environmental laws and regulations specific to the substance or mixture
Related provisions of the European Union (EU)
Restrictions under REACH, Annex XVII
None of the components are listed
Restricted hazardous substances (REACH, Annex XVII)
Substance name: Sulfur dioxide in aqueous solution
Name according to inventory: this product meets the criteria for classification in accordance with Regulation No. 1272/2008/EC
CAS No. -
Restriction R3
N. 3

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Legend
R3 1. Not allowed:
- In decorative objects intended to produce luminous or color effects obtained in different stages, e.g. lamps
ornamental and ashtrays,
- in joke articles,
- in games for one or more participants or in any object intended to be used for this purpose, even with
decorative aspects.
2. Articles that do not comply with paragraph 1 may not be placed on the market.
3. They may not be placed on the market if they contain a dye, except for fiscal reasons, or a fragrance, or both, if:
- they can be used as fuel in ornamental oil lamps sold to the public, and
- they present an aspiration hazard and are labeled with the hazard statement H304.
4. Ornamental oil lamps intended for sale to the public may be placed on the market only if they are
comply with the European standard on ornamental oil lamps (EN 14059) adopted by the European Committee for Standardization
(CEN).
5. Without prejudice to the application of other Union provisions relating to the classification, labeling and packaging
of substances and mixtures, suppliers shall ensure, prior to placing on the market, that the following are met
requirements:
(a) oil lamps labeled with the hazard statement H304 and intended for sale to the general public shall bear in a
visibly, legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach of children"; and, as of Dec. 1, 2010, "Swallowing a sip of oil-or sucking the wick of a lamp-can cause lung injury with potential life-threatening effects."
(b) grill lighter liquids labeled with the hazard statement H304 and intended for sale to the public shall bear from December 1
2010 legibly and indelibly marked as follows: "Ingestion of a sip of lighter fluid may
cause lung injury with potential life-threatening effects."
(c) lamp oils and grill lighter fluids labeled with the hazard statement H304 and intended for sale to the public
are packaged in black opaque containers with a capacity of 1 liter or less as of December 1, 2010.

16. OTHER INFORMATION

This sheet cancels and replaces any previous edition.

LEGEND SYMBOLS
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Service of the Chemical Abstract (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived no-effect level.
EINECS: European inventory of existing chemicals on the market.
GefStoffVO: Ordinance on hazardous substances, Germany.
GHS: General harmonized system of classification and labeling of chemicals.
IATA: International Air Transport Association.
IATA-DGR: Regulations for the transportation of dangerous goods of the "International Air Transport Association"(IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions of the "International Civil Aviation Organization"(ICAO).
IMDG: International Maritime Dangerous Goods Code.

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INCI: International nomenclature of cosmetic ingredients.
KSt: Coefficient of explosion.
LC50: Lethal concentration for 50 percent of the population tested.
LD50: Lethal dose for 50 percent of the population tested.
N.A.: Not Available
PNEC: Predicted no-effect concentration.
RID: Regulations concerning the international transport of dangerous goods by rail.
STE: Short-term exposure.
STEL: Short-term exposure limit.
STOT: Specific target organ toxicity.
TLV: Threshold limit value.
TWATLV: Threshold limit value for an 8-hour weighted average exposure per day. (ACGIH standard).
WGK: German water hazard class.