



OJSC "Gomel Chemical Plant"

SAFETY DATA SHEET

prepared in accordance with Regulation (EU) 830/2015

Version: 3.1/EN

Revision date: 24.05.2017

SODIUM SULFITE

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name: sodium sulfite

Chemical name:

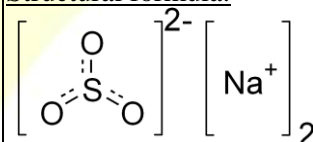
IUPAC: disodium sulfite

EC: sodium sulfite

CAS: Sulfurous acid disodium salt

Chemical formula: Na₂SO₃

Structural formula:



Molecular weight: 126.04

EC No: 231-821-4

CAS No: 7757-83-7

Registration No (REACH): 01-2119537420-49-0001

1.2 Relevant identified uses of the substance or mixture

The product is used in leather industry and in such branches of industry as, medical, pharmaceutical, chemical and photographic, as well as for flotation of non-ferrous metals and in other branches of industry.

1.3 Details of the supplier of the safety data sheet

Company name: OJSC «Gomel Chemical Plant»

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Juodkiskio 50 LT-57502, Kedainiai

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1.4 Emergency telephone number

+375 (232) 23-12-35 (around the clock)

2 HAZARDS IDENTIFICATION

2.1 Classification

Product has not been classified according to Regulation (EC) No. 1272/2008

2.2 Label elements

In accordance with Regulation (EC) No. 1272/2008 labeling is not required

2.3 Other hazards

Sodium sulfite is not classified as PBT or vPvB.

On contact with acids the product releases sulfur dioxide (SO₂).

3 COMPOSITION/INFORMATION ON INGREDIENTS

component	CAS No	EC No	percentage, %	classification
Sodium sulfite Na ₂ SO ₃	7757-83-7	231-821-4	minimum 96	-

Sodium carbonate Na ₂ CO ₃	497-19-8	207-838-8	maximum 0,4	Eye Irrit. 2, H319

4 FIRST AID MEASURES

4.1 Description of first aid measures

General recommendations	(Provide) rest, warmth, comfortable position (of body), and access of fresh air.
Inhalation	Provide access of fresh air, give some water to drink. If there are persistent symptoms (or when feeling unwell), get medical attention.
Skin contact	Wash out with stream water until the product totally removed. Use soap if possible. If symptoms persist(or when feeling unwell), get medical attention.
Eye contact	Flush eyes with plenty of stream water for at least 10-15 minutes. If possible, remove contact lens. If symptoms of affect are experienced (such as pain, itchi-ness/"sandpaper" in the eyes, visual loop), get medical attention.
Swallowing	Rinse mouth. Give plenty of water to drink. If symptoms persist or when feel- ing unwell, get medical attention. Do NOT induce vomiting unless directed by medical personnel

4.2 Most (important) typical symptoms and effects, both acute and delayed

Prolonged skin contact may result in skin irritation and redness. Prolonged eye contact may cause itchiness and lacrimation. When swallowed the substance may cause nausea, vomit and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5 FIRE FIGHTING MEASURES

5.1 Extinguishing media

5.1.1 Suitable extinguishing media	In fire condition use extinguishing media suitable for extinguishing fire caught by packing and other (flammable) materials appeared in fire area.
5.1.2 Unsuitable extinguishing media	Minimize use of water to avoid contamination of environment.

5.2 Special hazards arising from the substance or mixture

Fire-flame-proof substance.

5.3 Advice for fire fighters

The product is incombustible, but due to high temperatures, sulfur dioxide (SO₂) can be released. In fire conditions, one should wear protective clothing and self-contained breathing apparatus as prescribed by NIOSH.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel	Use individual protective equipment as per Section 8 of the given safety data sheet. Do not touch nor tread upon spilled material.
6.1.2 For emergency responders	Use individual protective equipment as per Section 8 of the given safety data sheet. Evacuate from spillage zone all the personnel not involved in accidental release measures. Ventilate spillage zone. While collecting spillage, minimize dust generation.

6.2 Environmental precautions

Avoid ingress of product in surface water and ground water.

6.3 Methods and material for containment and cleaning up

Collect spilled but clean product in container or other suitable reservoirs/receptacles. Handle impure product and waste generated in accordance with section 13 of the given safety data sheet.

6.4 Reference to other sections

Information about individual precautions is set out in Section 8 of the given safety data sheet.

Information on disposal consideration and that on impure product disposal are set out in Section 13 of the given safety data sheet.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Precautions	While handling the product, use personal protective equipment in accordance with Section 8 of the given safety data sheet. Avoid uncontrolled release of the product into environment.
7.1.2 Advice on general hygiene	Use local suction-and-exhaust ventilation. When handling the product, do not eat, drink or smoke. After handling the product, wash clothing contaminated with fines of product. Before entering eating areas, remove protective clothing.

7.2 Conditions of safe storage, including any incompatibilities

Sodium sulfite shall be stored in sound packing in dry enclosed warehouse rooms providing protection from moisture and dirt.

Sodium sulfate packed in big bags may be kept on yard protected from sunlight and precipitation or may be kept under fore-roof.

Do not store with incompatible materials-see Section 10 of the given safety data sheet.

7.3 Specific end use(s)

Not available

8 EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters**

Ingredient name	EC No	Exposure form	Occupational exposure limits
Sodium sulfite Na ₂ SO ₃	231-821-4	aerosol	TLV= 15 mg/m ³

DNELs (Derived No-Effect Level) for workers:**Sodium sulfite:**

Long-term – systemic effects, Oral: 11 mg/kg of body weight per day (as SO₂ equivalents)

Long-term – systemic effects, Inhalation: 88 mg/m³ (as SO₂)

DNELs (Derived No-Effect Level) for the general population:**Sodium sulfite:**

Long-term – systemic effects, Oral: 11.46 mg/kg of body weight per day (as SO₂)

Long-term – systemic effects, Inhalation: 88.05 mg/m³ (as SO₂)

8.2 EXPOSURE CONTROL

8.2.1 Appropriate engineering controls	General suction-and-exhaust ventilation, sealing of processing equipment.
8.2.2 Individual protection measures, such as personal protective equipment	<p>8.2.2.1 <u>Eye/face protection:</u> Dustproof glasses as per EN 166.</p> <p>8.2.2.2 <u>Skin/hands protection:</u> Protective suit, safety shoes as per EN 344 and safety gloves as per EN 374.</p> <p>8.2.2.3 <u>Respiratory protection:</u> Respirator, as per EN 149, equipped with dust filter as per EN 143.</p>
8.2.3 Environmental exposure controls	Prevent entry into soil, surface water and ground water.

9 PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Appearance: white powder;

Physical state: solid;

Hydrogen index pH: 10 – 11 (10% water solution);

Boiling temperature: This study does not need to be conducted for solids with a melting point above 300°C;

Melting temperature: >900°C;

Ignition temperature: incombustible;

Density: 2,63 g/cm³;

Water solubility: (g/100ml):

T, °C	0	20	40	60	80	100
solubility, g	14,4	26,1	37,4	33,2	29,0	26,6

9.2 Other information

Not available

10 STABILITY AND REACTIVITY**10.1 Reactivity**

Sodium sulfite is strong reducing agent. Under ordinary conditions Na₂SO₃×7H₂O salts up from water solutions. While in water solutions sodium sulfate is prone to rapid oxidation through atmospheric oxygen.

10.2 Chemical stability

The product is stable under normal conditions (T = 273,15 K, P = 101,3 KPa) and recommended conditions of handling and storage.

10.3 Possibility of hazardous reactions

Reactions with most acids emit sulfur dioxide (SO₂)

10.4 Conditions to avoid

Avoid contact with oxidizers.

10.5 Incompatible materials

Acids.

10.6 Hazardous decomposition productssulfur dioxide (SO₂).**11 TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects**

Accumulation	There are no reliable data about in vivo distribution of sodium sulfate, its metabolism and excretion.
Acute toxicity	oral: LD ₅₀ >2600 mg/kg; dermal: LD ₅₀ >2000 mg/kg; inhalation: LC ₅₀ >5.5 mg/l;
Corrosion/irritation	Skin irritation: not irritating Eye irritation: not irritating
Sensitization	Not detected
Repeated dose toxicity	Results of study on reproductive toxicity of sodium metabisulfite did not show evidence that the group of sulfite substances has the given toxicity. Based on the lack of any effects on reproductive performance and organs, the reproductive tract is not considered to represent a target organ of toxicity.
Mutagenicity	Reliable data don't available
Carcinogenicity	As per Annex X of Regulation No 1907/2006 (REACH) carcinogenicity study does not need to be conducted as there is no evidence that exposure to aluminum fluoride results in hyperplasia or neoplastic lesions.
Toxicity for reproduction	No data available

12 ECOLOGICAL INFORMATION**12.1 Toxicity****Toxicity to fish:**

LC50 for freshwater fish: 149.5 mg/l

EC10/LC10 or NOEC for freshwater fish: 50 mg/l

Toxicity, invertebrates:

EC50/LC50 for freshwater invertebrates: 74.9 mg/l

EC10/LC10 or NOEC for freshwater invertebrates: 8.41 mg/l

Toxicity, algae:

EC50/LC50 for freshwater algae: 36.8 mg/l

EC10/LC10 or NOEC for freshwater algae: 28 мг/л

12.2 Persistence and degradability**Abiotic degradation:** the substance may dissociate in water solutions.**Biodegradation:** reliable data are not available.**12.3 Bioaccumulative potential**

Sodium sulfite dissociates in aqueous solution or in contact with soil moisture to form sulfite ions that are prone to oxidation to sulfate ions. Therefore, bioaccumulation of product is not expected.

12.4 Mobility in soil

Reliable data about mobility in soil are not available.

12.5 Results of PBT and vPvB assessment

In accordance with Regulation (EU) No 1907/2006 (REACH) Annex VIII, assessment of PBT and vPvB properties of the product has not been made, since the given product is inorganic substance.

12.6 Other adverse effects

The product has alkaline reaction and may affect hydrogen index (pH).

13 DISPOSAL CONSIDERATIONS**13.1 Waste treatment****General information:** For safe handling unclean product and package use individual protective means.**Product utilization recommendations:** If used, handled and kept in accordance with appropriate rules, the product doesn't generate waste. Unclean product or that with poor/lost usability shall be handled in accordance with national legislations on waste treatment. Do not discharge wastes of product into sewage facilities.**Packing utilization recommendations:** Emptied containers/packaging shall be handled in accordance with the effective

national legislation on waste treatment.

14 TRANSPORT INFORMATION

14.1 UN number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other information

The cargo isn't classified as dangerous as on international carriage regulations.

The product is shipped/transported by rail (RID), by road (ADR) and by maritime transport (IMDG) in package in accordance with effective regulation on carriage of goods.

The bagged product, as it is or palletized, is transported by covered transport.

Sodium sulfite packed in soft container or palletized is transported by river transport.

15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance

The product has not been classified according to Regulation (EC) 1272/2008.

15.2 Chemical safety assessment

Chemical safety assessment has been carried out for sodium sulfite (chemical safety report CSR-PI-5.2.6).

16 OTHER INFORMATION

16.1 General information

This version of Safety Data Sheet supersedes version 2.0.

16.2 Acronyms

DNEL –Derived No-Effect Level

PNEC –Predicted No Effect Concentrations

LD50 – Lethal Dose resulting in 50% mortality of test species

LC50 – lethal concentration resulting in 50% mortality of test species

EC50 –50% effect concentration

NOAEL – no observed adverse effect level.

NOAEC - no observed adverse effect concentration.

PBT/vPvB –Persistent Bioaccumulative And Toxic / very persistent very bioaccumulative

TLV – threshold limit value

Eye Irrit. 2 – eye irritation, category 2.

H319 – causes serious eye irritation.

16.3 Most important sources of information used for compiling the safety data sheet

- Registration dossier and chemical safety report (CSR-PI-5.2.6);
- European chemical Substances Information System (ESIS);
- Federation of European Risk Management Associations data (FERMA);
- Databases on hazardous substance GESTIS;
- Sodium sulfite Safety Data Sheet issued by OJSC «Gomel Chemical Plant», version 3.0 of 25.05.2015.

Prior to use of product please carefully study the information provided in this Safety Data Sheet.

The data provided in this Safety Data Sheet are based on information and experience available at OJSC «Gomel Chemical Plant» as of the day of Safety Data Sheet compilation.

The information provided in this Safety Data Sheet relates only to the given specific product and may not be valid for such product used in combination with any other substances and materials that affect the product properties.

In no event will the manufacturer be responsible for injuries and health problems of any nature whatsoever resulting from the improper use of the product or from non-observance of safety handling, storage and transportation.