

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

1 Identification

- **Product identifier**
- **Trade name:** **Scrubber Solution**
- **Product Description** Disodium sulfite (in water solution)
- **Application of the substance / the mixture** Chemical intermediate
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
DRT America LLC
400 Governor Treutlen Drive
Rincon, GA 31326
- **Information department:** Regulatory Affairs
- **Emergency telephone number:**
Within USA and Canada: 1-800-CHEMTREC (424-9300)
Outside the USA and Canada: 1-703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Precautionary statements**

P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves / eye protection.
P301+P312	IF SWALLOWED: Call a doctor if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P341	If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mixture of the substances listed below with nonhazardous additions.
CAS No. 7732-18-5: Water 81 - 84%

- **Dangerous components:**

CAS: 7757-83-7 EINECS: 231-821-4	sodium sulphite	⚠ Acute Tox. 4, H302	11-17%
-------------------------------------	-----------------	----------------------	--------

- **Additional information:**

Impurities:
7757-82-6: Disodium sulfate 0 - 2%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air. If symptoms are experienced, get medical attention. In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately rinse with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation occurs.
- **After eye contact:**
Immediately rinse with plenty of water. Remove contact lenses, if present and easy to do. Hold eyelids apart and flush eyes with plenty of cool low-pressure water for 15 minutes. Consult an ophthalmologist.
- **After swallowing:**
If the person is conscious, immediately rinse out mouth with water. Seek immediate medical advice.

(Contd. on page 3)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 2)

- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** The product is not combustible.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Provide adequate ventilation.
- **Environmental precautions:**
Do not allow product to reach soil, waterways, drains and sewers.
Inform the relevant authorities if the product has caused environmental pollution (soil, waterways, drains or sewers).
- **Methods and material for containment and cleaning up:**
Small spills:
Absorb spilled liquid with inert absorbent. Collect and seal in an appropriate container properly labelled for disposal.
Large spills:
Stop spill if it can be done without danger. Dike. Pump as much liquid as possible with an explosion-proof pump or a hand pump. Absorb remaining liquid with inert absorbent. Collect and seal in an appropriate container properly labelled for disposal.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

CAS: 7757-83-7	sodium sulphite	11 mg/m3
CAS: 7757-82-6	sodium sulphate	9.8 mg/m3

· **PAC-2:**

CAS: 7757-83-7	sodium sulphite	120 mg/m3
CAS: 7757-82-6	sodium sulphate	110 mg/m3

(Contd. on page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 3)

· **PAC-3:**

CAS: 7757-83-7	sodium sulphite	710 mg/m3
CAS: 7757-82-6	sodium sulphate	650 mg/m3

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Wear personal protective equipment. Provide adequate ventilation.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store under cover in a cool well-ventilated location.
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** None
- **Additional information:** This sheet is based on the current valid lists.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Immediately remove all soiled and contaminated clothing.
Avoid contact with eyes and skin.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
Impervious gloves
Gloves should be discarded and replaced regularly. They should be replaced immediately if there is any indication of degradation or chemical breakthrough.
- **Eye protection:** Chemical goggles
- **Body protection:** Protective work clothing

— US —
(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 4)

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	Colorless to light yellow
· Odor:	Slightly sulfurous
· Odor threshold:	Not determined.

· **pH-value at 20 °C (68 °F):** 7-9

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)

· **Flash point:** Not applicable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto ignition temperature:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Oxidizing properties** The substance does not contain any chemical groups associated with oxidizing properties.

· **Vapor pressure:** Not determined.

· **Density:**

Bulk density:	Not determined
Relative density at 20 °C (68 °F)	1.1-1.2 g/cm ³ (9.18-10.014 lbs/gal)
Evaporation rate	Not determined.

· **Solubility in / Miscibility with Water:**

Soluble.

· **Partition coefficient (n-octanol/water):** Not applicable

· **Viscosity:**

Dynamic:	Not determined.
Kinematic:	Not determined.

· **Solvent content:**

VOC content: 0.0 g/l / 0.00 lb/gl

· **Other information** No further relevant information available.

— US —

(Contd. on page 6)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 5)

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under recommended handling and storage conditions.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Protect from heat.
- **Incompatible materials:** Avoid contact with strong acids and oxidizers.
- **Hazardous decomposition products:** Sulfur oxides (SO_x)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
Oral LD₅₀ 2610 mg/kg (rat)
(Note: this is the LD₅₀ of pure sodium sulfite)
- **Primary irritant effect:**
- **on the skin:**
Sodium sulfite was not rated as a skin irritant in a study conducted in rabbits according to a method similar to guideline OECD 404. Only slight and reversible effects were observed. SODIUM SULFITE IN WATER SOLUTION is therefore not classified.
- **on the eye:**
Sodium sulfite was not rated as an eye irritant in a study conducted on rabbits according to a method similar to guideline OECD 404. Only slight and reversible effects were observed. SODIUM SULFITE IN WATER SOLUTION is therefore not classified.
- **Sensitization:**
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
- **Other information (about experimental toxicology):**
Mutagenicity/genotoxicity:
No mutagenicity was observed when sodium sulfite was tested in bacteria according to guideline OECD 471 (Ames test). In addition, according to the EU SO₂ REACH Consortium (Sulfur Dioxide Based Chemicals REACH Consortium), sodium sulfite has no genotoxic potential in mammalian cells. Therefore, it can be concluded that SODIUM SULFITE IN WATER SOLUTION has no genotoxic potential.

Carcinogenicity:
According to the EU SO₂ REACH Consortium (Sulfur Dioxide Based Chemicals REACH Consortium), sodium sulfite is not expected to be carcinogenic. The same conclusion can be drawn for SODIUM SULFITE IN WATER SOLUTION.
Additionally, according to the United Nations International Agency for Research on Cancer (IARC): Sulfur dioxide, sulfites, bisulfites and metabisulfites are not classifiable as to their carcinogenicity to humans (Group 3).

Reproductive toxicity:
According to the EU SO₂ REACH Consortium (Sulfur Dioxide Based Chemicals REACH Consortium), sodium sulfite is not expected to induce toxic effects for reproduction. The same conclusion can be drawn for SODIUM SULFITE IN WATER SOLUTION.

(Contd. on page 7)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 6)

· **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

According to EU SO₂ REACH Consortium (Sulfur Dioxide Based Chemicals REACH Consortium), sodium sulfite is not classified for aquatic toxicity. This conclusion is based on acute and chronic aquatic toxicity studies conducted on fish, daphnia and algae. Therefore SODIUM SULFITE IN WATER SOLUTION is not classified.

· **Persistence and degradability** *No further relevant information available.*

· **Behavior in environmental systems:**

· **Bioaccumulative potential** *No further relevant information available.*

· **Mobility in soil** *No further relevant information available.*

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

· **Other adverse effects** *No further relevant information available.*

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Disposal should be in accordance with applicable Federal, State and local regulations.

· **Uncleaned packagings:**

· **Recommendation:**

Packaging has to be sent to an authorised waste treatment facility, for recycling or disposal.

US

(Contd. on page 8)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 7)

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	Void
· ADR	
· Class	Void Non-regulated
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **SECTIONS 302/304**

This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

· **SECTION 311 AND 312 HC-2: Chronic health hazard**

· **CERCLA**

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

· **RCRA**

This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

(Contd. on page 9)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 8)

• **Proposition 65**

• **Chemicals known to cause cancer:**

None of the ingredients is listed.

• **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

• **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

• **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

• **Canadian substance listings:**

• **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

• **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

• **GHS label elements** Void

• **Hazard pictograms** Void

• **Signal word** Void

• **Hazard statements** Void

• **Precautionary statements**

P202 Do not handle until all safety precautions have been read and understood.

P234 Keep only in original container.

P260 Do not breathe mist/vapours/spray.

P262 Do not get in eyes, on skin, or on clothing.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves / eye protection.

P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330 Rinse mouth.

P363 Wash contaminated clothing before reuse.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 10)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/11/2017

Reviewed on 07/11/2017

Trade name: Scrubber Solution

(Contd. of page 9)

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.

- **Department issuing SDS:** Regulatory Affairs Department

- **Contact:** MSDS@pinovasolutions.com

- **Date of preparation / last revision** 07/11/2017 / 3

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

- *** Data compared to the previous version altered.**

US