



SAFETY DATA SHEET

Revision Date 01/30/2015

REVISION NUMBER: 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name OS-15, Liquid Oxygen Scavenger

Other means of identification

Product code 103890

Synonyms NONE

Recommended use of the chemical and restrictions on use

Recommended Use Water treatment chemical.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Rochester Midland Corporation
155 Paragon Drive
Rochester, New York 14624 USA

Emergency telephone number

EMERGENCY TELEPHONE INFOTRAC: 1-800-535-5053
OUTSIDE U.S.: +1-352-323-3500

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1B

Label elements

Emergency Overview

DANGER

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

May cause cancer

May damage fertility or the unborn child

**Appearance** Clear, orange liquid.**Physical state** Liquid**Odor** Odorless**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No information available

Other Information

- May be harmful if swallowed
- Harmful to aquatic life with long lasting effects
- Harmful to aquatic life

Unknown Acute Toxicity 2.88% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION CAS#	CAS No.	%	TRADE SECRET
Sodium bisulfite	7631-90-5	30 - 40	*
Cobalt Sulphate	10124-43-3	< 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures****General advice**

Immediately call a POISON CENTER or doctor/physician.

Eye contact

IF IN EYES: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact IF ON SKIN: Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Ingestion IF SWALLOWED: Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization by inhalation and skin contact.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact NONE.

Sensitivity to Static Discharge NONE.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear adequate personal protective equipment, see Section 8, Exposure Controls/Personal Protection.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Dike to contain. Pick up with absorbant material. Put in suitable container for disposal.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep locked up and out of reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Acids. Strong oxidents, such as nitric acid, or hypochlorites. May release sulfur dioxide.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

PRODUCT COMPOSITION CAS#	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium bisulfite 7631-90-5	TWA: 5 mg/m ³	(vacated) TWA: 5 mg/m ³	-
Cobalt Sulphate 10124-43-3	TWA: 0.02 mg/m ³ Co	NA	-

Appropriate engineering controls

ENGINEERING CONTROLS Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses are recommended to minimize eye contact.

Skin and body protection Chemical resistant gloves are recommended to minimize skin contact. Appropriate protective clothing as needed to prevent skin contact. It is the responsibility of the end user of this product to determine level of PPE required that is consistent with safe use of this product.

RESPIRATORY PROTECTION If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

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

Physical state	Liquid	Odor	Odorless
Appearance	Clear, orange liquid.	Odor threshold	No information available
Color	Orange		
Property	Values	Remarks • Method	
pH	5.2		
Melting point/freezing point	No information available		
Boiling point / boiling range	100 °C / 212 °F		
Flash point	-	None to boiling.	
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific gravity	1.314 - 1.354		

Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
VOC (EPA METH.24) (G/L):	0
Density	11.11 lbs/gal
Bulk density	No information available

10. STABILITY AND REACTIVITY

REACTIVITY

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

CONDITIONS TO AVOID

Extremes of temperature and direct sunlight.

Incompatible materials

Acids. Strong oxidents, such as nitric acid, or hypochlorites. May release sulfur dioxide.

Hazardous Decomposition Products

Sodium sulfite decomposes above 302° F producing sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	May be harmful if swallowed
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Eye contact	May cause slight irritation.
Skin contact	May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	May be harmful if swallowed.

PRODUCT COMPOSITION CAS#	Oral LD50	Dermal LD50	Inhalation LC50
Sodium bisulfite 7631-90-5	= 1420 mg/kg (Rat)	-	-
Cobalt Sulphate 10124-43-3	= 424 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause sensitization by inhalation and skin contact. May cause allergic reaction in sulfite sensitive individuals. May cause sensitization by skin contact. May cause sensitization by inhalation.

Germ cell mutagenicity No information available.

Carcinogenicity May cause cancer.

PRODUCT COMPOSITION CAS#	ACGIH	IARC	NTP	OSHA
Sodium bisulfite 7631-90-5	-	Group 3	-	-
Cobalt Sulphate 10124-43-3	A3	Group 2B	Reasonably Anticipated	X

Reproductive Toxicity May impair fertility. May cause harm to the unborn child.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 2.88% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 3760 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

2.88% of the mixture consists of components(s) of unknown hazards to the aquatic environment

PRODUCT COMPOSITION CAS#	Algae/aquatic plants	Fish	Crustacea
Sodium bisulfite 7631-90-5	-	-	119: 48 h Daphnia magna mg/L EC50
Cobalt Sulphate 10124-43-3	0.4 - 72: 72 h Pseudokirchneriella subcapitata mg/L EC50	-	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

Proper shipping name

Not Regulated by DOT

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Does not Comply
IECSC	Does not Comply
KECL	Does not Comply
PICCS	Does not Comply
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

PRODUCT COMPOSITION CAS#	SARA 313 - Threshold Values %
Cobalt Sulphate - 10124-43-3	0.1

SARA 311/312 Hazard Categories

ACUTE HEALTH HAZARD	YES
CHRONIC HEALTH HAZARD	YES
FIRE HAZARD	No
Sudden release of pressure hazard	No
REACTIVE HAZARD	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

PRODUCT COMPOSITION CAS#	Hazardous Substances RQs (in LBS)	U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs
Sodium bisulfite 7631-90-5	5000	

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

PRODUCT COMPOSITION CAS#	CA PROP 65:
Cobalt Sulphate - 10124-43-3	Listed

U.S. State Right-to-Know Regulations

PRODUCT COMPOSITION CAS#	NJRTK:	MARTK:	PARTK:
Sodium bisulfite 7631-90-5	Listed	Listed	Listed
Cobalt Sulphate 10124-43-3			Listed

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION**NFPA**

Health hazards 1

Flammability 0

Instability 0

Physical and Chemical Properties -

HMIS

Health hazards 1

Flammability 0

Physical hazards 0

Personal protection B

Revision Date

01/30/2015

Revision Note

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

*** END OF SDS ***