

NACD Responsible Distribution Process Code of Management Practice

Each member company shall have an active program designed to continuously improve safety and reduce incidents. This Code does not impose upon member companies any obligation to guarantee compliance by third parties, i.e., parties over whom the member companies have no control. This program shall include:

I. Risk Management

- A. Senior management commitment, through policy, communications, and resources, to on-going improvements in chemical distribution safety.
- B. Regular review with suppliers of the hazards of materials.
- C. Identification and implementation of risk reduction measures.

II. Compliance Review and Training

- A. A process for monitoring regulations and industry practices for their application to chemical distribution activities.
- B. A process for implementing applicable regulations and industry practices that apply to chemical distribution activities.
- C. Training for all employees in the implementation of applicable regulations, as well as member company's specific requirements.
- D. A process for review of employee compliance with applicable regulations and member company's specific requirements and review of outside contractor and re-seller compliance with member company's specific requirements.

III. Carrier Selection

- A. A process for selecting carriers to transport chemicals that includes carrier safety and fitness, security, regulatory compliance, and performance review.

IV. Handling and Storage

- A. Procedures for ensuring that containers are appropriate for the chemical being shipped, comply with regulatory requirements, and are free from leaks and visible defects.
- B. Criteria for the cleaning and re-use of transportation equipment and chemical containers, and the proper disposal of cleaning residues
- C. Procedures for loading and unloading chemicals at the member company's facilities that result in protection of personnel, a reduction in emissions to the environment, and ensures that chemicals are loaded and unloaded into and out of proper storage facilities.
- D. A program for providing manufacturer guidance and information to customers, warehouses, terminals and/or carriers on procedures for loading, unloading, and/or storing chemicals.
- E. A process for selecting owned and contracted facilities and sites for chemical storage or handling that emphasizes safety, fitness and includes reviews.
- F. Documentation of current operating procedures for handling and storing chemicals.
- G. Facility design, construction, maintenance, inspection, and security practices that promote facility integrity, consistent with recognized codes and regulations.
- H. Develop a process for addressing chemical site and chemical transportation security.
- I. Provisions for control of processes and equipment during emergencies resulting from natural events, utility disruptions, and other external conditions.
- J. Procedures to properly label and mark packages and containers.

V. Job Procedures and Training

- A. Identification of the skills and knowledge necessary to perform each job.
- B. Establishment of procedures and work practices for safe operating and maintenance activities.
- C. Training for all personnel to reach and maintain proficiency in safe work practices and the skills and knowledge necessary to perform their job, including confirmation of competence.
- D. Programs designed to assure that personnel in safety critical jobs are fit for duty and are not compromised by external influences, including alcohol and drug abuse.
- E. Outside Contractors: In areas where hazardous materials are present, members shall have a process in place to inform contractors of the known hazards and the emergency action plan.

VI. Waste Management and Conservation Practices

- A. Procedures to ensure that all self-generated waste and empty containers are disposed of in a responsible manner, and in accordance with existing regulations.
- B. A clear commitment by senior management through policy communications, resources, and programs to ongoing waste reductions and pollution prevention at each member facility.
- C. A commitment to institute resource conservation measures.

VII. Emergency Response and Public Preparedness

- A. A process for responding to, reporting on, and investigating chemical distribution incidents and releases involving the member company's chemicals, and implementation of appropriate preventive measures developed from that investigative process.
- B. A system of internal investigation, reporting, appropriate corrective action, and follow-up for each incident and/or near miss that result or could have resulted in chemical incidents or releases.
- C. Procedures for making emergency response information concerning the member company's chemicals available to response agencies.

- D. Communication with state and/or local emergency planning commissions and response organizations on the potential hazards of the member company's chemicals.
- E. Annual review, testing, and assessment of the operability of the member company's written emergency action and fire prevention plan and/or emergency response plan.
- F. Facility tours for first responders to promote emergency preparedness and to provide current knowledge of facility operations.
- G. Coordination of the written facility emergency response plan with the local emergency response team and other facilities. If no community plan exists, the facility should assist with efforts to create one.
- H. Participation in the Local Emergency Planning Committee's process to develop and periodically test the local emergency response plan.

VIII. Community Outreach

- A. Interaction with organizations, associations, government officials and/or the public on behalf of NACD's Responsible Distribution ProcessSM.
- B. Information and updated for employees on the Responsible Distribution ProcessSM to encourage key employees to become involved in community outreach efforts.
- C. Advocacy of responsible public policies and regulations for chemical distribution.

IX. Product Stewardship

Customers

- A. A process to qualify customers as prescribed by governmental regulation.
- B. Member companies should work with customers to foster appropriate dissemination of information on the proper use, handling and disposal of products commensurate with product risk. A member may decide to cease doing business with customers whose practices are clearly inconsistent with the Responsible Distribution ProcessSM.

X. Internal RDP Audits

- A. Member companies shall establish documented procedures for regularly scheduled INTERNAL AUDITS to verify the implementation of policies and procedures supporting the RDP Code of Management Practice. The audits will be used to evaluate the effectiveness of the policies and procedures. Internal Audits shall be done on a yearly basis beginning with successful completion of the Interim Verification Process.
- B. Audits shall be recorded and results brought to the attention of appropriate management personnel who must take timely corrective or preventive action. Annual audit results should be retained until the next Third-party On-Site Verification is completed.

XI. RDP Corrective and Preventive Action

- A. Member companies shall establish a CORRECTIVE AND PREVENTIVE ACTION system for RDP related issues. This system should permit the identification and communication of inadequacies or improvements in each member company's implementation of RDP.
- B. Member companies shall establish and maintain procedures for implementing corrective action and preventive actions arising from internal and external audits or other sources. Any corrective or preventive action taken to resolve the cause or RDP implementation inadequacy shall be appropriate, as determined by member company management, to the magnitude of the cause or inadequacy and commensurate with the risk involved.

XII. RDP Document and Data Control

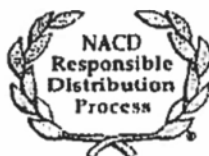
- A. Member companies shall establish and maintain a documented system to control all policies and procedures supporting RDP. In addition, member companies shall maintain a documented system to control the documents and data relating to RDP itself as issued by the National Association of Chemical Distributors (NACD).
- B. Data includes any of the above that is electronically stored and utilized.
- C. These documented procedures shall include provisions for review and approval of any new or revised policies and procedures by the authorized personnel within the member company.
- D. A master list or functionally equivalent document control system identifying the current version of each document shall be established and be readily available to preclude the use of invalid and/or obsolete documents. The system shall ensure that:

Changes to documents and data shall be reviewed and approved by the same function/organization that performed the original review and approval, unless specifically designated otherwise. These functions/organizations shall have access to pertinent background information upon which to base their review and approval. Where practical, the nature of the change shall be identified in the document or appropriate attachments.

NACD Responsible Distribution Process

Guiding Principles

1. To recognize and respond to community concerns about chemicals, their handling, and transportation.
2. To make health, safety, security, and environmental considerations a priority in our planning for all existing and new operations, products, processes, and facilities.
3. To inform emergency response officials, employees, customers, and the public of manufacturer's information on chemical-related health or environmental hazards, and the manufacturer's recommendations on protective measures.
4. To work with customers, in accordance with manufacturer's recommendations, on product stewardship including handling, use, transportation, and disposal of chemical products.
5. To operate our plants and facilities in a manner that protects the health and safety of our employees, the public and the environment.
6. To cooperate in resolving problems created by past handling and disposal of hazardous chemicals.
7. To participate with government and others in creating responsible laws, regulations, and practices to help safeguard the community, workplace, and environment.
8. To promote the principles and practices of Responsible Distribution ProcessSM by sharing experiences and offering assistance to others who produce, handle, use, transport, or dispose of chemicals.



RDP – What Is It?

Univar is a member of the National Association of Chemical Distributors. This trade association developed the Responsible Distribution ProcessSM (RDP), which focuses on the responsible management and distribution of chemicals.

RDP emphasizes continual improvement in the health, safety, security, and environmental performance of all NACD member companies. This includes a commitment to comply with environmental, health and safety regulations; providing critical product safety information to employees, contractors and customers; while working with local communities and neighbors to respond to their needs. RDP consists of a set of Guiding Principles and the Code of Management Practice. This Code includes 47 specific requirements, divided into twelve sections:

- Risk Management
- Compliance Review and Training
- Carrier Selection
- Handling and Storage
- Job Procedures and Training
- Waste Management & Conservation
- Emergency Response/Public Preparedness
- Community Outreach
- Product Stewardship
- Internal RDP Audits
- RDP Corrective & Preventive Action
- RDP Document & Data Control

A key requirement of RDP and a condition of membership in NACD is verification of members' RDP policies and procedures by a third-party firm. Univar received the first Third-Party verification in 1995 and received a compliance certificate. We were re-certified in 2000 and again in 2004.

Univar maintains a leadership position in NACD, and remains firmly committed to the Responsible Distribution Process and its objective of promoting continual improvement in chemical handling and distribution.





**Univar Solutions USA Inc.
Safety Information**

I. INTRODUCTION

(A) Scope

Univar USA Inc. (UNIVAR) is committed to conducting its operations in a manner that minimizes the risk to the safety and health of our employees, customers, the public and the environment.

(B) Purpose

This Injury & Illness Prevention Program (IIPP) has been developed by UNIVAR for its employees who may be exposed to general and/or chemical hazards. This program meets the requirements of Senate Bill 198 enacted under California Labor Code Section 6401.7 and the General Industry Safety Orders Section 3203.

This IIPP represents only a portion of UNIVAR's Safety and Environmental Program. The program includes several written programs and manuals such as the Operating Standards Manual, Emergency Contingency Plan, Risk Management Program, Process Safety Management Program, Hazard Communication Program, Respiratory Protection Program, Confined Space Entry Program, Lock Out/Tag Out Program, Hot Work Program and Documentation Manual. The IIPP is not intended to be a standalone program but rather a supplement to all of the other current programs. The primary functions of this program are to inform employees of the regulation, highlight areas of occupational hazards, direct them to the proper means of minimizing the identified hazards and define the lines of communication between employees and management.

This IIPP is available for review by employees, government agencies, vendors, contractors or any other parties who have a need to examine the Program. The Program includes:



**Univar Solutions USA Inc.
Safety Information**

Employer Information:	Name, address, telephone number, type of business and main activity.
Administrator Information:	Person with the authority and responsibility to administer the program.
Safety & Health Hazard Evaluation:	A two step process which includes job classification and occupational hazard analysis.
Standard Operating Procedures/ Operating Standards:	Programs and procedures necessary to ensure employee safety and health in every aspect of their job.
Inspection Program:	Inspections are conducted: (1) when the IIPP is first established; (2) whenever new substances, processes, procedures, or equipment are introduced into the workplace; (3) whenever a new or previously unrecognized hazard is identified; (4) when occupational injuries or illnesses occur; and (5) whenever workplace conditions warrant an inspection. Scheduled daily, weekly and monthly inspections.
Training Program:	Employees receive initial, refresher and ongoing training as required.
Communication:	Provides a means to instruct employees on the hazards associated with each job classification; ensure employees' compliance with standard operating procedures and safe work practices; encourage employees to participate in the safety program and identify areas of concern and/or hazards.
Safety Award Program:	Company program that encourages and rewards employees for working safely.



**Univar Solutions USA Inc.
Safety Information**

Progressive Disciplinary Action Policy: Company policy that disciplines employees that do not perform their job functions according to

established policies, procedures and guidelines. These policies, procedures and guidelines have been developed to establish a safe working environment for all of our employees and any deviation from them will not be tolerated.

Recordkeeping Requirements: Includes this written program; hazard analysis; the OSHA 300 Log; Standard Operating Procedures; inspections; training; meeting records and disciplinary actions for a period of time prescribed

Program Reviews: Review and assess this and other company programs as required to ensure their effectiveness and applicability.

UNIVAR SOLUTIONS SECURITY PROGRAM

As an international distributor of industrial chemicals, a participant in the National Association of Chemical Distributors Responsible Distributor program, and an active member of the communities we serve, Univar Solutions USA Inc. (Univar) has long had policies and procedures in place to ensure the security of our products, facilities, employees and communities. The following summary outlines the major provisions of Univar's Security Program which reflects not only prudent measures to maximize the secure and safe handling of chemicals, but also the security requirements of various federal programs related to management of hazardous materials including DOT hazardous material transportation requirements, DHSCFAT program and Department of Commerce import rules among others. Note that this description is necessarily a broad overview of Univar's security program as various agencies limit the security related information that can be disclosed.

For our business partners that are C-TPAT certified please consider the following outline a demonstration of the degree to which Univar complies with C-TPAT security criteria.

BUSINESS PARTNER REQUIREMENT

Univar has a written and verifiable process for the selection of business partners including manufacturers, product suppliers and vendors. Other internal requirements such as; capability of meeting contractual security requirements and financial soundness are included in the verification process.

POINT OF ORIGIN

Univar ensures its foreign business partners have security criteria in place that enhances the integrity of the shipment at point of origin. Periodic reviews of foreign business partners' processes and facilities are conducted based on risk.

CONTAINER SECURITY

Container integrity is maintained as mandated by international cargo transport laws and regulations.

EN ROUTE SECURITY

Hazardous cargo is secured while in transit. Additionally, products and routes are annually evaluated to assess potential security risks.

COMMON CARRIER EVALUATION

In addition to the above security measures, Univar has taken steps to verify our common carriers' compliance with DOT's HM-232 rules. Each common carrier has been asked to certify their security compliance with regards to HM-232.

PERSONNEL SECURITY

Personnel security begins with hiring qualified employees. Univar has established policies and procedures to ensure we hire and maintain qualified employees. These policies and procedures include, but are not limited to:

- Pre-employment background checks
- Pre-employment and random drug tests for drivers and warehouse staff
- Policy on "Standards of Conduct" (included in the Employee Handbook)
- Policy on "Confidential Information" (included in the Employee Handbook)
- Checkout procedures for terminating employees
- Referral of illegal or criminal activities to law enforcement

PHYSICAL ACCESS CONTROLS & SECURITY, PROCEDURAL & IT SECURITY

SECURITY & VULNERABILITY ASSESSMENT

Due to the hazardous nature of the chemicals we manage and distribute, Univar constantly assesses its security and vulnerability concerning internal or external threats that could potentially disrupt operations or harm our employees, communities or the environment. Univar's security program addresses the following potential sources of loss or disruption:

- Theft, vandalism, and break-ins
- Theft of confidential business information
- Sabotage of equipment, utilities, and records
- Product contamination and tampering
- Bomb threats
- Civil unrest disrupting plant access and operations
- Workplace violence and assaults

Additionally, Univar has developed a risk-based matrix to identify areas of concern and has taken steps to address those areas of concern.

The initial security evaluations periodically reviewed by the site security official to evaluate the integrity and effectiveness of security policies, procedures and systems.

UNAUTHORIZED ACCESS

Univar has established minimum facility security guidelines that must be implemented and adhered to by each facility. Those minimum guidelines include but are not limited to:

- Perimeter and warehouse security
- Equipment security
- Access controls for production areas, warehouses, utility facilities, and offices
- Signs to direct visitors and vehicles to the appropriate entry points
- Visitor control



Univar employees have been trained to question unescorted person(s) within the operating areas, and to be watchful for unusual activity on company property or in the immediate surrounding areas.

SITE SECURITY COORDINATOR

Each Univar facility has designated an employee, and an alternate, as the site security coordinator. This person(s) is responsible for performing the following security management functions:

- Prepare and implement a site specific security program consistent with the requirements herein
- Establish relationships with law enforcement and emergency response agencies
- Manage incident reporting procedures, conduct incident investigations, and if necessary, conduct investigations into breaches of company security policy
- Train employees about security awareness
- Address security issues in an emergency, participate in crisis management planning and ensure appropriate execution in emergency
- Periodically reassess the facility's site security program

TRAINING

The Security Coordinator or his/her designee will train site personnel upon hire and every three years thereafter on the site security program. At a minimum, training includes:

- Company security objectives
- Specific site security procedures:
 - Product integrity
 - Personnel security
 - Facility security
 - En-route security
- Employee responsibilities

Should you have any general questions regarding Univar site and transit security program, please contact Jon Webster, Senior Vice President, North America Supply Chain & Operations at (425)241-7138 or Jeff Dixon, Director, International Trade Services at (281)543-8771.

Respectfully,

A handwritten signature in black ink, appearing to read "Jon Webster".

Jonathan (Jon) Webster
Senior Vice President
North America Supply Chain & Operations

COMMON CARRIER EVALUATION

In addition to the above security measures, Univar has taken steps to verify our common carriers' compliance with DOT's HM-232 rules. Each common carrier has been asked to certify their security compliance with regards to HM-232.

Should you have any questions regarding any of the items noted in this security program summary, please feel free to contact your local Univar representative or myself at (425) 889-3776.

Respectfully,

A handwritten signature in dark ink, appearing to read "Ed Higbee", is written over a faint, light-colored circular stamp or watermark.

Ed Higbee
Director – Regulatory, Health & Safety



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Thursday, February 16, 2023** at 12:15 a.m. Eastern Time.
Please contact NSF to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information:

<http://info.nsf.org/Certified/PwsChemicals/Listings.asp?>

[CompanyName=Univar&ChemicalName=Sodium+Bisulfite&](http://info.nsf.org/Certified/PwsChemicals/Listings.asp?CompanyName=Univar&ChemicalName=Sodium+Bisulfite&)

NSF/ANSI/CAN 60 Drinking Water Treatment Chemicals - Health Effects

Univar Solutions Canada Ltd.

9800 Van Horne Way
Richmond, BC V6X 1W5
Canada
604-273-1441

Facility : # 3 Canada

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulphite 38%, Solution	Dechlorinator & Antioxidant	50mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal
allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable
residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

**Univar Solutions Canada Ltd. DBA
Univar Canada Ltd.**

64 Arrow Road
North York, ON M9M 2L9
Canada
416-740-5300

Facility : Valleyfield, Québec, Canada

Sodium Bisulfite

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
SODIUM BISULPHITE 38% SOLUTION	Dechlorinator & Antioxidant	41mg/L

NOTE: Only products bearing the NSF Mark on the product, product packaging, and/or documentation shipped with the product are Certified.

**Univar Solutions USA Inc. DBA
Univar USA Inc.**

3075 Highland Parkway
Suite 200
Downers Grove, IL 60515
United States
425-889-3400

Facility : # 1 St. Louis, MO

Sodium Bisulfite

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 38-40%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution	Dechlorinator & Antioxidant	46mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Distribution Center - Phoenix 27th Ave., AZ

Sodium Bisulfite[1]

Trade Designation	Product Function	Max Use
Sodium Bisulfite 25%	Dechlorination	46mg/L
Sodium Bisulfite 38%	Dechlorination	46mg/L
Sodium Bisulfite 39%	Dechlorination	46mg/L
Sodium Bisulfite 40%	Dechlorination	46mg/L
Sodium Bisulfite 41%	Dechlorination	46mg/L
Sodium Bisulfite 42%	Dechlorination	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Distribution Center - Fremont, CA

Sodium Bisulfite[1]

Trade Designation	Product Function	Max Use
Sodium Bisulfite 25%	Dechlorination	46mg/L
Sodium Bisulfite 32-43%	Dechlorination	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Distribution Center - Santa Fe Springs, CA

Sodium Bisulfite[2]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 38-40%	Dechlorination	46mg/L
Sodium Bisulfite 25%	Dechlorination	46mg/L

[2] This product contains sulfite. Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals. The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Redwood City, CA

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 25%	Dechlorination	46mg/L
Sodium Bisulfite 42%	Dechlorination	46mg/L

[1] This product contains sulfite.
Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.
The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Distribution Center - Dallas, GA

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 38-40%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.
Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Portland, OR

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite 25%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite 38-40%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution 38-40%	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Distribution Center - Morrisville Steel Road, PA

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite	Dechlorination	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Middletown, PA

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Reducite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution, 38-40%	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Kent, WA

Sodium Bisulfite

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite 38-40%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution 38-40%	Dechlorinator & Antioxidant	46mg/L

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Facility : Phoenix 45th Avenue, AZ

Sodium Bisulfite[1]

<i>Trade Designation</i>	<i>Product Function</i>	<i>Max Use</i>
Sodium Bisulfite 25%	Dechlorination	46mg/L
Sodium Bisulfite 38%	Dechlorination	46mg/L
Sodium Bisulfite 39%	Dechlorination	46mg/L

Sodium Bisulfite 40%	Dechlorination	46mg/L
Sodium Bisulfite 41%	Dechlorination	46mg/L
Sodium Bisulfite 42%	Dechlorination	46mg/L

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The maximum recommended allowable residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

NOTE: Only products bearing the "NSF 60" designation are Certified by NSF International.

Number of matching Manufacturers is 3

Number of matching Products is 37

Processing time was 1 seconds

CERTIFICATE OF ANALYSIS



Univar Solutions
525 Seaport Blvd.
Redwood City, CA 94063
PH. 650-363-1661
FAX 650-261-2020
www.univarsolutions.com

DATE: 07/13/2022

PRODUCT: Sodium Bisulfite 25%

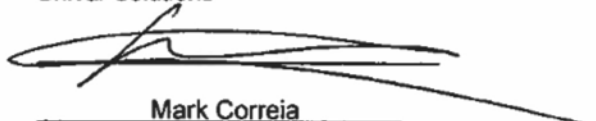
PRODUCT GRADE: NSF

UNIVAR SOLUTIONS MATERIAL NUMBER: 16141680

UNIVAR SOLUTIONS BATCH NUMBER: 0840M00360

<u>TEST</u>	<u>RESULTS</u>	<u>SPECIFICATIONS</u>
Assay, NaHSO ₃	25.91%	24.0%-26.0%
Specific Gravity @ 20°C	1.245	1.150-1.250
pH	5.31	3.5-5.5
Visual	Pass	Clear/Free of Particles

Univar Solutions



Mark Correia

Yard Specialist



Note:

Please consult the SDS for further information.

Univar Solutions represents only that the Product shall meet the specifications herein. All transactions involving this Product are subject to Univar Solutions' standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.

CERTIFICATE OF ANALYSIS



Univar Solutions
525 Seaport Blvd.
Redwood City, CA 94063
PH. 650-363-1661
FAX 650-261-2020
www.univarsolutions.com

DATE: 07/13/2022

PRODUCT: Sodium Bisulfite 25%

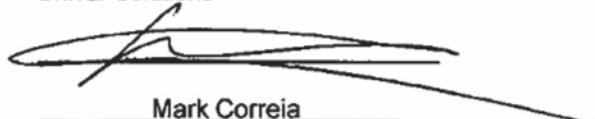
PRODUCT GRADE: NSF

UNIVAR SOLUTIONS MATERIAL NUMBER: 16141680

UNIVAR SOLUTIONS BATCH NUMBER: 0840M00360

<u>TEST</u>	<u>RESULTS</u>	<u>SPECIFICATIONS</u>
Assay, NaHSO ₃	25.91%	24.0%-26.0%
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pH	5.31	3.5-5.5
Visual	Pass	Clear/Free of Particles

Univar Solutions



Mark Correia

Yard Specialist



Note:

Please consult the SDS for further information.

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QA 6.20 x 2; 03/05/2019 Page 1

Safety Data Sheet**SODIUM BISULFITE 5-27%**

Version 1.2

Revision Date: 06/28/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**Product name** : SODIUM BISULFITE 5-27%**Recommended use of the chemical and restrictions on use****Recommended use** : industrial chemical**Manufacturer or supplier's details****Company** : Univar Solutions USA, Inc.**Address** : 3075 Highland Pkwy Suite 200

Downers Grove, IL 60515

United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300)

CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department

E-mail: SDSNA@univarsolutions.com

SDS Requests: 1-855-429-2661

Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance / Mixture** : Mixture**Hazardous components**

CAS-No.	Chemical name	Weight percent
7631-90-5	Sodium bisulfite	20 - 30

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice : Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with soap and plenty of water.
If symptoms persist, call a physician.

In case of eye contact : Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.

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Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Do not induce vomiting without medical advice.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Dry chemical Carbon dioxide (CO ₂) Alcohol-resistant foam
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: No hazardous combustion products are known
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Environmental precautions	: Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Normal measures for preventive fire protection.
Advice on safe handling	: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Conditions for safe storage	: Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	: No materials to be especially mentioned.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7631-90-5	Sodium bisulfite	TWA	5 mg/m ³	ACGIH
		TWA	5 mg/m ³	NIOSH REL
		PEL	5 mg/m ³	CAL PEL

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required. No personal respiratory protective equipment normally required.
Eye protection	:	Safety glasses
Skin and body protection	:	Protective suit
Hygiene measures	:	General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	yellow
Odour	:	pungent
Odour Threshold	:	No data available
pH	:	No data available
Freezing Point	:	No data available
Boiling Point	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	8.7500 lb/gal
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available

SECTION 10. STABILITY AND REACTIVITY

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Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Strong acids Strong oxidizing agents aluminum powder sodium nitrate

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Components:**7631-90-5:**Acute oral toxicity : LD50 (Rat): 1,700 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation**Components:****7631-90-5:**

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation**Components:****7631-90-5:**

Species: Rabbit

Result: No eye irritation

Germ cell mutagenicity**Components:****7631-90-5:**

Genotoxicity in vitro : Test Type: Ames test

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Species: Salmonella typhimurium
Result: negativeGenotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Result: negative

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity**Components:****7631-90-5:**Carcinogenicity - Assessment
IARC

: Carcinogenicity classification not possible from current data.

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity**Components:****7631-90-5:**

Teratogenicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****7631-90-5:**

Toxicity to fish

: LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 89 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 43.8 mg/l
Exposure time: 72 h

Acute aquatic toxicity- Assessment : Harmful to aquatic life.

Chronic aquatic toxicity- Assessment : Harmful to aquatic life with long lasting effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

SECTION 14. TRANSPORT INFORMATION**DOT (Department of Transportation):**

UN2693, Bisulfites, aqueous solutions, n.o.s., 8, III

IATA (International Air Transport Association):

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UN2693, BISULPHITES, AQUEOUS SOLUTION, N.O.S., 8, III

IMDG (International Maritime Dangerous Goods):

UN2693, BISULPHITES, AQUEOUS SOLUTION, N.O.S., 8, III

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium bisulfite	7631-90-5	5000	17272

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7631-90-5 Sodium bisulfite

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7631-90-5 Sodium bisulfite

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7631-90-5 Sodium bisulfite

Pennsylvania Right To Know

7732-18-5 Water

7631-90-5 Sodium bisulfite

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

Safety Data Sheet

SODIUM BISULFITE 5-27%

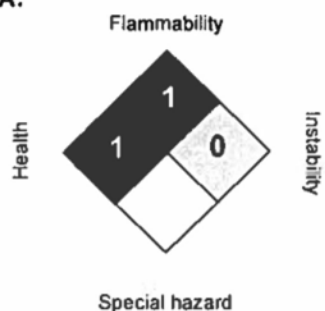
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TSCA	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	1/
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 06/28/2022

Material number:

16160612, 16160585, 16152330, 16154999, 16151052, 16157084, 16141711, 16141680, 16142224, 16141001, 16142575

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Govern-	LD50	Lethal Dose 50%

Safety Data Sheet
SODIUM BISULFITE 5-27%

Version 1.2

Revision Date: 06/28/2022

	ment Industrial Hygienists		
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

CERTIFICATE OF ANALYSIS



Univar Solutions
12522 Los Nietos Road
Santa Fe Springs, CA 90670
PH. 562-944-7244
FAX 562-903-0056
www.univarsolutions.com

DATE: 5/19/2022

PRODUCT: Sodium Bisulfite Solution, 40%

PRODUCT GRADE: NSF

UNIVAR PRODUCT CODE: 16140307

UNIVAR LOT/PJO NUMBER: HO22022401

TEST		RESULTS	SPECIFICATIONS
Titrate NaHSO_3	%	37.90	38.0% - 42.0%
Specific Gravity @ 60°F		1.3700	1.318 - 1.352
pH		4.93	3.0 - 5.5

Univar Solutions

Julie Hordyk (Signature)

Julie Hordyk (Print Name)

Dispatcher (Job Title)



Notes:

Consult the SDS for additional information.

All information is based on data obtained from the manufacturer or other recognized technical sources. The information is believed to be accurate. Univar Solutions makes no representation or warranty, express, or implied, concerning the accuracy or sufficiency of the information. Univar Solutions is not liable for any damages resulting from the use or non-use of the information. All transactions involving this Product are subject to Univar Solutions standard Terms and Conditions, available at www.univarsolutions.com or upon request. Univar Solutions makes no additional representations or warranties, express or implied, as to the Product.

Safety Data Sheet

SODIUM BISULFITE 38-42%

Version 1.6

Revision Date: 08/30/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SODIUM BISULFITE 38-42%

Recommended use of the chemical and restrictions on use

Recommended use : industrial chemical

Manufacturer or supplier's details

Company : Univar Solutions USA, Inc.
Address : 3075 Highland Pkwy Suite 200
 Downers Grove, IL 60515
 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300)
 CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
 E-mail: SDSNA@univarsolutions.com
 SDS Requests: 1-855-429-2661
 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1
Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1C
Serious eye damage : Category 1
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
 P234 Keep only in original container.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.

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P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

Storage:

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

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7631-90-5	Sodium bisulfite	30 - 50

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficul-

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SODIUM BISULFITE 38-42%

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- | | |
|------------------------|--|
| In case of eye contact | <p>ty.
If on skin, rinse well with water.
If on clothes, remove clothes.</p> <p>: Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Take victim immediately to hospital.</p> |
| If swallowed | <p>: Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.</p> |

SECTION 5. FIREFIGHTING MEASURES

- | | |
|---|---|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during fire-fighting | : Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : Carbon oxides
Nitrogen oxides (NOx)
sulfur oxides |
| Further information | : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus for firefighting if necessary. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment. |
| Environmental precautions | : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). |

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Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7631-90-5	Sodium bisulfite	TWA	5 mg/m ³	ACGIH
		TWA	5 mg/m ³	NIOSH REL
		PEL	5 mg/m ³	CAL PEL

Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water

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Skin and body protection	:	Tightly fitting safety goggles
		Wear face-shield and protective suit for abnormal processing problems.
Hygiene measures	:	Impervious clothing
		Choose body protection according to the amount and concentration of the dangerous substance at the work place.
		When using do not eat or drink.
		When using do not smoke.
		Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	clear, yellow
Odour	:	Sulfur dioxide odor
Odour Threshold	:	No data available
pH	:	3.0 - 5.0
Freezing Point (Melting point/freezing point)	:	5 - 7 °C (41 - 45 °F)
Boiling Point (Boiling point/boiling range)	:	104 °C (219 °F)
Flash point	:	> 93 °C (> 199 °F)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	1.31 - 1.38 @ 20 - 25 °C (68 - 77 °F) Reference substance: (water = 1)
Density	:	No data available
Solubility(ies)	:	
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Thermal decomposition	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	excessive heat
Incompatible materials	:	Barium

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Hazardous decomposition products	Lead magnesium mercury or mercury alloys Potassium Silver Strong acids Strong oxidizing agents Aluminium Sulphur oxides Carbon oxides
----------------------------------	--

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

7631-90-5:

Acute oral toxicity : LD50 (Rat): 1,700 mg/kg
 Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Components:

7631-90-5:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Components:

7631-90-5:

Species: Rabbit

Result: No eye irritation

Germ cell mutagenicity

Components:

7631-90-5:

Genotoxicity in vitro : Test Type: Ames test
 Species: Salmonella typhimurium
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Species: Mouse

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Result: negative

Germ cell mutagenicity -
Assessment

: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

7631-90-5:

Carcinogenicity - Assessment
IARC

: Carcinogenicity classification not possible from current data.

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

7631-90-5:

Teratogenicity - Assessment

: No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

7631-90-5:

Toxicity to fish

: LC50 (Leuciscus idus (Golden orfe)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other
aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 89 mg/l
Exposure time: 48 h

Toxicity to algae

: EC50 (Desmodesmus subspicatus (green algae)): 43.8 mg/l
Exposure time: 72 h

Acute aquatic toxicity- Assessment

: Harmful to aquatic life.

Chronic aquatic toxicity- Assessment

: Harmful to aquatic life with long lasting effects.

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Version 1.6

Revision Date: 08/30/2022

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects**Product:**

- Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
- Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

- Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**DOT (Department of Transportation):**

UN2693, Bisulfites, aqueous solutions, n.o.s., 8, III

IATA (International Air Transport Association):

UN2693, BISULPHITES, AQUEOUS SOLUTION, N.O.S., (SODIUM BISULFITE) , 8, III

IMDG (International Maritime Dangerous Goods):

UN2693, BISULPHITES, AQUEOUS SOLUTION, N.O.S., (SODIUM BISULFITE), 8, III, Flash Point:> 93 °C(> 199 °F)

Safety Data Sheet

SODIUM BISULFITE 38-42%

Version 1.6

Revision Date: 08/30/2022

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium bisulfite	7631-90-5	5000	11363

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7631-90-5 Sodium bisulfite

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7631-90-5 Sodium bisulfite

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7631-90-5 Sodium bisulfite
7757-82-6 Sodium sulphate

Pennsylvania Right To Know

7732-18-5 Water
7631-90-5 Sodium bisulfite
7757-82-6 Sodium sulphate

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Safety Data Sheet

SODIUM BISULFITE 38-42%

Version 1.6

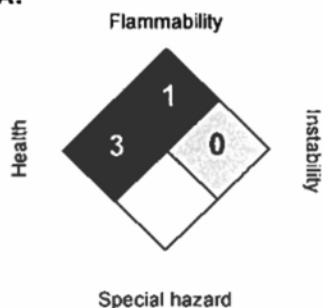
Revision Date: 08/30/2022

The components of this product are reported in the following inventories:

TSCA	: On the inventory, or in compliance with the inventory
DSL	: On the inventory, or in compliance with the inventory
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 08/30/2022

Legacy SDS: : 100000039158

Material number:

16188835, 16182885, 16169588, 16169431, 16169874, 16174725, 16168692, 16169503, 16168771, 16178394, 16177763, 16176488, 16180412, 16173527, 16171247, 16152616,

Safety Data Sheet

SODIUM BISULFITE 38-42%

Version 1.6

Revision Date: 08/30/2022

16161345, 16158625, 16160028, 16153923, 16150080, 16155598, 16153889, 16141391, 16142787, 16153532, 16142748, 16135286, 16138245, 16138094, 16160213, 16158189, 16144938, 16142598, 16141906, 16141752, 16141724, 16141663, 16141298, 16140179, 16136870, 16135289, 506934, 71274, 16179260, 16173000, 16156115, 16153683, 16153705, 16153659, 16158373, 16154308, 16154408, 16153858, 16153751, 16156803, 16156802, 16156929, 16161388, 16154559, 16156451, 16154337, 16163644, 16140307, 16143734, 16153373, 16157287, 16153082, 16152814, 16154338, 16140952

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
05/31/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Aon Risk Services Central, Inc.
Philadelphia PA Office
100 North 18th Street
15th Floor
Philadelphia PA 19103 USA

CONTACT
NAME:
PHONE
(A/C. No. Ext): (866) 283-7122 FAX
(A/C. No.): 800-363-0105
E-MAIL
ADDRESS:

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURED
Univar Solutions USA Inc.
3075 Highland Parkway
Suite 200
Downers Grove IL 60515 USA

INSURER A:	ACE American Insurance Company	22667
INSURER B:	ACE Fire Underwriters Insurance Co.	20702
INSURER C:	Indemnity Insurance Co of North America	43575
INSURER D:	Illinois Union Insurance Company	27960
INSURER E:		
INSURER F:		

COVERAGES

CERTIFICATE NUMBER: 570093377463

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PROJECT ☐ LOC OTHER:			XSLG47304775 SIR applies per policy terms & conditions	06/01/2022	06/01/2023	EACH OCCURRENCE \$3,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$3,000,000 MED EXP (Any one person) Excluded PERSONAL & ADV INJURY \$3,000,000 GENERAL AGGREGATE \$3,000,000 PRODUCTS - COMPOP AGG \$3,000,000
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS ONLY			ISA H10699058 Commercial Auto	06/01/2022	06/01/2023	COMBINED SINGLE LIMIT (Ea accident) \$5,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
D	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION			XCEG27380566009 SIR applies per policy terms & conditions	06/01/2022	06/01/2023	EACH OCCURRENCE \$4,000,000 AGGREGATE \$4,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☒ N	N/A	WLRC70303085 AOS WLRC70303048 MA	06/01/2022	06/01/2023	☒ PER STATUTE ☐ OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000
D	Env Site Liab			PPLG71507944002 Pollution-ClaimsMade Form SIR applies per policy terms & conditions	06/01/2022	06/01/2025	Aggregate \$16,000,000 Ea Condition \$1,000,000 SIR \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Evidence of Insurance.

CERTIFICATE HOLDER

CANCELLATION

Univar Solutions USA Inc.
3075 Highland Parkway, Suite 200
Downers Grove IL 60515 USA

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Central, Inc.

Holder Identifier :

Certificate No : 570093377463



ADDITIONAL REMARKS SCHEDULE

Page _ of _

AGENCY Aon Risk Services Central, Inc.		NAMED INSURED Univar Solutions USA Inc.	
POLICY NUMBER See Certificate Number: 570093377463			
CARRIER See Certificate Number: 570093377463	NAIC CODE	EFFECTIVE DATE:	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

ADDITIONAL POLICIES If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
	AUTOMOBILE LIABILITY						
A				MMT H10699125 Truckers Liability	06/01/2022	06/01/2023	Combined Single Limi \$5,000,000
	WORKERS COMPENSATION						
B		N/A		SCFC70302962 WI	06/01/2022	06/01/2023	
A		N/A		WCUC70303000 Excess WC--CA OH OR,WA SIR applies per policy terms & conditions	06/01/2022	06/01/2023	
	OTHER						
	☒ Claims Made Form						