JMN SPECIALTIES, INC.

Safety Data Sheet
SPEC HIB 3150-MA

SECTION 1: Identification

1.1 GHS Product identifier

Product name	SPEC HIB 3150-MA
Product number	SPEC HIB 3150-MA
Brand	JMN

1.3 Recommended use of the chemical and restrictions on use

This product is a liquid, molybdate-based corrosion inhibitor formulated with azole and polymer dispersants to provide rapid passivation and long-term protection for mixed-metal cooling systems following pre-operational cleaning. For industerial use only.

1.4 Supplier's details

Name	JMN Specialties, Inc.
Address	1100 Victory Drive Westwego LA 70094 USA
Telephone	504-341-3749
Fax	504-341-5868
email	sales@jmnspecialties.com

1.5 Emergency phone number

CALL CHEMTEL: Toll Free US & Canada: (800) 255-3924, Outside USA +01-813-248-0585.

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Specific target organ toxicity (single exposure), Cat. 3

2.2 GHS label elements, including precautionary statements

Pictograms

Signal word **Warning**

Hazard statement(s)

H319	Causes serious eye irritation
H315	Causes skin irritation
H335	May cause respiratory irritation

Precautionary statement(s)

P264	Wash hands and clean any skin contact thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P321	Specific treatment (see first aid instructions on label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER, doctor, or emergency room if you feel unwell,
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Component	Identification	Weight %	Classifications
Sodium molybdate dihydrate	CAS no.: 10102-40-6	35 - 45 %	CLASSIFICATIONS: No data available. HAZARDS: No data available.
1,2,4-Butanetricarboxylic acid, 2-phosphono-	CAS no.: 37971-36-1	10 - 20 %	CLASSIFICATIONS: No data available. HAZARDS: No data available.
Sodium polyacrylate	CAS no.: 9003-04-7	20 - 30 %	CLASSIFICATIONS: No data available. HAZARDS: No data available.
Styrene acrylic acid copolymer	CAS no.: 25085-34-1 EC no.: 607-532-8	5 - 10 %	CLASSIFICATIONS: No data available. HAZARDS: No data available.
Tolyltriazole	CAS no.: 29385-43-1 EC no.: 249-596-6 Index no.: 613-351-00-5	1 - 5 %	CLASSIFICATIONS: Hazardous to the aquatic environment, long-term (chronic), Cat. 2. HAZARDS: H411 - Toxic to aquatic life with long lasting effects.

Trade secret statement (OSHA 1910.1200(i))
Any concentration shown as a range is to protect confidentiality or is due to batch variation. When not listed, mixtures may contain water [CAS No. 7732-18-5] to 100%.

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Keep person warm and at rest. Treat symptomatically and supportively. Seek medical attention immediately. Qualified medical personnel should consider administering oxygen.
In case of skin contact	Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice. Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Personal protective equipment for first-aid responders	Wear suitable protective clothing. Wear gloves and eye/face protection.

4.2 Most important symptoms/effects, acute and delayed
Irritation of eyes, skin, and respiratory tract.

4.3 Indication of immediate medical attention and special treatment needed, if necessary
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Determined by surrounding material. In case of fire, use water fog, dry chemical, CO2, or "alcohol" foam. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

5.2 Specific hazards arising from the chemical
Spilled product on ground may be slippery. Product is not flammable but may produce toxic fumes (SO_x, NO_x, CO_2, Na_2O) if decomposed.

5.3 Special protective actions for fire-fighters

When fire fighting conditions are severe and total thermal decomposition of the product is possible, wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate personal protective equipment before approaching spill site. For small spills, dilute with water to sewer if allowed by local and state regulations. If unable to wash product with water, absorb with inert material (sand or other approved material) and dispose of in accordance with applicable regulations.

6.2 Environmental precautions

Keep spill from drains or waterways.

6.3 Methods and materials for containment and cleaning up

Use sand or any suitable absorbent material to contain spill.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Do not inhale vapors and fumes. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally. For industrial use only.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a tightly closed container, stored in a cool, dry, ventilated area below 44°C (110°F). Do not mix with acids or oxidizers. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Drum must not be washed out or used for other purposes.

Specific end use(s)

Formulated for use with any HP (High Pressure) cleaning machines for removal of dirt, oils and greases. Product is suitable for hot or cold high pressure spray equipment. Product can also be used as a hand washing cleaner. See label for further directions.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Sodium molybdate dihydrate (CAS: 10102-40-6)

2. 1,2,4-Butanetricarboxylic acid, 2-phosphono- (CAS: 37971-36-1)

3. Sodium polyacrylate (CAS: 9003-04-7)

4. Styrene acrylic acid copolymer (CAS: 25085-34-1 EC: 607-532-8)

5. Tolyltriazole (CAS: 29385-43-1 EC: 249-596-6)

8.2 Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms

Eye/face protection
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Chemical resistant, impermeable gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron or chemical suit and chemical resistant boots are recommended.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Thermal hazards
No data available

Control banding approach
No data available

Environmental exposure controls
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Color	Clear to slightly hazy light-yellow liquid
Odor	Mild, characteristic
Odor threshold	No data available
Melting point/freezing point	≈ 25 °F (-4 °C)
Boiling point or initial boiling point and boiling range	> 212 °F (100 °C)
Flammability	Non-Flammable to boiling

Lower and upper explosion limit/flammability limit	No data available
Flash point	Water based, Non-flammable material
Explosive properties	None
Auto-ignition temperature	No Data Available
Decomposition temperature	No data available
Oxidizing properties	No data available
pH	11.0 – 11.5
Kinematic viscosity	≈ 50 cP
Solubility	Complete
Partition coefficient n-octanol/water (log value)	Not determined
Vapor pressure	< 1 mm Hg @ 25 °C
Evaporation rate	Similar to Water
Density and/or relative density	≈1.25 (10.4 lb/gal)
Relative vapor density	> 1
Particle characteristics	Not applicable for this product

SECTION 10: Stability and reactivity

10.1 Reactivity
None under normal use conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

10.4 Conditions to avoid
None under normal use conditions.

10.5 Incompatible materials
Acids (strong neutralization), oxidizers, aluminum metals in acidic state.

10.6 Hazardous decomposition products
Oxides of carbon, nitrogen, phosphorus, sulfur, and sodium. In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Oral LD_{50} (rat): >2,000 mg/kg (low acute toxicity)
Dermal LD_{50} (rat): >2,000 mg/kg
Inhalation LC_{50}: Not available (low volatility, low risk)

Skin corrosion/irritation
May cause skin irritation.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitization
Based on available data, classification data are not met

Germ cell mutagenicity
Based on available data, classification data are not met

Carcinogenicity
IARC: 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. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. 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. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
Based on available data, classification data are not met

Summary of evaluation of the CMR properties
Product does not contain substances meeting the criteria for classification as carcinogenic, mutagenic, or toxic for reproduction category 1A or 1B in accordance with the Classification, Labeling, and Packaging (CLP) Regulation (EC) No. 1272/2008

Specific target organ toxicity (STOT) - single exposure
Category 3: Respiratory tract irritation (sore throat, cough).

Specific target organ toxicity (STOT) - repeated exposure
The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposure. This product may aggravate existing eye, skin, and respiratory conditions.

Aspiration hazard
Respiratory stress is uncommon but present occasionally because of soft tissue edema.

Additional information
Solutions of this product are alkaline. Exposure to alkaline solutions may result in irritation to any contacted tissue, including possible burns, depending on the concentration, duration, and nature of the exposure.

SECTION 12: Ecological information

Toxicity
ACUTE TOXICITY
FISH 96hr LC50 (rainbow trout): >100 mg/L (based on similar products / components)
AQUATIC INVERTEBRATES: 48hr EC50 (Daphnia magna): >100 mg/L (based on similar products / components)

CHRONIC TOXICITY
FISH :NOEC/NOEL: >100 mg/L (based on similar products / components)
AQUATIC INVERTEBRATES: NOEC/NOEL: >100 mg/L (based on similar products / components)
TOXICITY TO AQUATIC PLANTS: Algae, practically nontoxic: LL/EL/IL > 100 mg/l. (based on similar products / components)

Persistence and degradability
This product contains organic and non-organic ingredients. Biodegradability for organic ingredients under aerobic static laboratory conditions is high (BOD20 or BOD28 / THOD greater than 80%).

Bioaccumulative potential
Potential to bioaccumate is low. Log Kow < 3.

Mobility in soil
Expected to partition to water.

Results of PBT and vPvB assessment
Not fulfilling PBT (persistent/bio accumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bio accumulative) criteria.

Endocrine disrupting properties
Based on available data, this product and its constituents are not considered to have endocrine-disrupting properties for the environment.

Other adverse effects
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Handle in accordance with good industrial hygiene and safety practice.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
If discarded in its purchased form, it is not a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40CFR261.20-24).

Packaging disposal
Once empty, containers can be rinsed and disposed of or recycled.

Waste treatment
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility.

Sewage disposal
Proper disposal methods include using the sanitary sewer system, a Water Reclamation Facilitiy, or using a private treatment company. In using any of these methods you may need to pre-treat your water.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

Component	CAS no.	RTK (US) for state:	TSCA (US)[1]	CA Prop. 65[2]	pfas[3]
Sodium Molybdate Dihydrate	10102-40-6	-	-	-	-
1,2,4-Butanetricarboxylic acid, 2-phosphono-	37971-36-1	-	P	-	-
Sodium polyacrylate	9003-04-7	-	P	-	-
Styrene acrylic acid copolymer	25085-34-1	-	P	-	-
TOLYLTRIAZOLE	29385-43-1	-	P	-	-

[1] "P"—Public list, "C"—Confidential list. [2] "c"—cancer, "r"—reproductive harm. [3] "pfas"—Per- and polyfluoroalkyl substances.

Regulation	Applicability
Australian Inventory of Industrial Chemicals	Chemical name: Molybdate (MoO42-), disodium, dihydrate, (T-4)- CAS number: 10102-40-6, CR number: 12471
Canadian Domestic Substances List (DSL)	Chemical name: 1,2,4-Butanetricarboxylic acid, 2-phosphono- CAS number: 37971-36-1
Australian Inventory of Industrial Chemicals	Chemical name: 1,2,4-Butanetricarboxylic acid, 2-phosphono- CAS number: 37971-36-1, CR number: 18722
Canadian Domestic Substances List (DSL)	Chemical name: 2-Propenoic acid, homopolymer, sodium salt CAS number: 9003-04-7
Canadian Domestic Substances List (DSL)	Chemical name: 2-Propenoic acid, sodium salt, homopolymer CAS number: 25549-84-2
Australian Inventory of Industrial Chemicals	Chemical name: 2-Propenoic acid, homopolymer, sodium salt CAS number: 9003-04-7, CR number: 11889
Canadian Domestic Substances List (DSL)	Chemical name: 2-Propenoic acid, polymer with ethenylbenzene CAS number: 25085-34-1
Australian Inventory of Industrial Chemicals	Chemical name: 2-Propenoic acid, polymer with ethenylbenzene CAS number: 25085-34-1, CR number: 16024
Canadian Domestic Substances List (DSL)	Chemical name: 1H-Benzotriazole, 4(or 5)-methyl- CAS number: 29385-43-1
EU Table of Harmonized Entries (Annex VI to CLP)	Chemical name: methyl-1H-benzotriazole CAS number: 29385-43-1
Australian Inventory of Industrial Chemicals	Chemical name: 1H-Benzotriazole, 6(or 7)-methyl- CAS number: 29385-43-1, CR number: 17406

15.2 Chemical Safety Assessment

A Chemical Safety Assessment (CSA) has not been carried out for this mixture. (Under EU REACH, CSAs are performed for substances; this product is a mixture formulated from registered substances.)

Annex: Voluntary Chemical Safety Assessment (summary)
Ingestion: Ingestion of Product may cause transient gastrointestinal irritation, potentially leading to nausea, vomiting, and/or diarrhea.
Eye Contact: Product can cause eye irritation, potentially resulting in stinging, tearing, itching, swelling, and/or redness.
Skin Contact: Prolonged contact with concentrated Product may cause transient irritation and drying to the skin.
Respiratory Issues: Fumes from some cleaning products can irritate the lungs and may trigger asthma symptoms in sensitive individuals.

HMIS Rating

SPEC HIB 3150-MA	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA Rating

SECTION 16: Other information

Changes have been made throughout this Safety Data Sheet (SDS). Please read the entire document.

16.1 Further information/disclaimer

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, the Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the people receiving this Safety Data Sheet (SDS) will make their own determination as to its suitability for their intended purposes prior to use. Since the product is within exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal and State Regulations concerning the Product. It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

16.2 Preparation information

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) by the Company Health and Risk Assessment Unit.