

Safety Data Sheet

Date Printed: 10/30/2025

Product: WRA-MC-017

1. Identification

Product Information: WRA-MC-017

Product Name: Insitu® ES² EX Spray Applied Corrosion Coating

Recommended Use: Industrial Paint or Paint Related

Application Method: Restricted to professional users

Supplied by: Modine Manufacturing Co.
1423 West Ormsby Ave.
Louisville, KY

Emergency Telephone: ChemTrec 1-800-424-9300

2. Hazards Identification

EMERGENCY OVERVIEW: No hazards to be specially mentioned.

GHS Classification
Carc. 2, Skin Sens. 1

Symbol(s) of Product



Signal Word
Warning

GHS HAZARD STATEMENTS

Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Carcinogenicity, category 2	H351	Suspected of causing cancer.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P317	If skin irritation or rash occurs: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store in accordance with local regulations.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/Information on Ingredients

Chemical Name	CAS-No.	Wt. %	GHS Symbols	GHS Statements
DIPROPYLENE GLYCOL BUTYL ETHER	29911-28-2	1.0-2.5	No Information	No Information
PROPYLENE GLYCOL	57-55-6	1.0-2.5	No Information	No Information
ETHYLENE GLYCOL BUTYL ETHER	111-76-2	0.1-1.0	GHS02-GHS07	H226-302+H332-315-319
Nickel	7440-02-0	0.1-1.0	GHS07-GHS08	H317-351-372
CARBON BLACK	1333-86-4	0.1-1.0	GHS07	H332
N-Ethylmorpholine	100-74-3	0.1-1.0	GHS07	H302+H312
No Chemical Name Found		0.1-1.0	GHS07	H317

The text for GHS Hazard Statements shown above (if any) is given in the "Other information" Section.

4. First-aid Measures



FIRST AID - GENERAL ADVICE: Show this safety data sheet to the doctor in attendance. Do not get in eyes, on skin, or on clothing. May cause allergic skin reaction. Remove and isolate contaminated clothing and shoes. When symptoms persist or in all cases of doubt seek medical advice. Use personal protective equipment. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin. See section 8 for more information.

FIRST AID - INHALATION: Remove from exposure, lie down. Remove to fresh air. Keep victim warm and quiet. If unconscious, place in recovery position and seek medical advice. Artificial respiration and/or oxygen may be necessary. Administer oxygen if breathing is difficult. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a doctor immediately if allergic signs, particularly in the respiratory tract, are observed. Get medical attention if symptoms occur.

FIRST AID - INGESTION: Rinse mouth with water. Consult a physician if necessary. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a POISON CENTER or doctor/physician if exposed or you feel unwell. Allergic symptoms may develop within 12 hours after exposure.

FIRST AID - SKIN CONTACT: Allergic symptoms may develop within 12 hours after exposure. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

FIRST AID - EYE CONTACT: Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May produce an allergic reaction. Do not rub affected area. Call a physician if irritation develops or persists.

NOTES TO PHYSICIAN: Treat symptomatically. May cause sensitization of susceptible persons. Effects of contact or inhalation may be delayed.

5. Fire-fighting Measures

UNUSUAL FIRE AND EXPLOSION HAZARDS: Runoff may pollute waterways. Product is or contains a sensitizer. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

SPECIAL FIREFIGHTING PROCEDURES: No Information

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

6. Accidental Release Measures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent media. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations. Dispose of material in accordance with all federal, state and local regulations.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: No Information

ENVIRONMENTAL PRECAUTIONS: Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological information. Dispose of contents/container to an approved waste disposal plant.

ADVICE FOR EMERGENCY RESPONDERS: In the event of fire, wear self-contained breathing apparatus. Refer to protective measures listed in sections 7 and 8.

PERSONAL PRECAUTIONS: Evacuate personnel to safe areas. Use personal protective equipment. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wash

thoroughly after handling. Do not breathe dust. Do not breathe vapors or spray mist. Avoid exceeding of the given occupational exposure limits (see section 8).

7. Handling and Storage



HANDLING: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Ensure adequate ventilation. Wash thoroughly after handling. Provide sufficient air exchange and/or exhaust in work rooms. Keep container closed when not in use.

STORAGE: Keep in properly labeled containers. Keep out of the reach of children. Store in a well-ventilated place. Keep cool. Keep locked up or in an area accessible only to qualified or authorized persons. Store between 41 and 77 °F (5 - 25° C) in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

Chemical Name	ACGIH TLV-TWA	ACGIH-TLV STEL	OSHA PEL-TWA
DIPROPYLENE GLYCOL BUTYL ETHER	N.E.	N.E.	N.E.
PROPYLENE GLYCOL	N.E.	N.E.	N.E.
ETHYLENE GLYCOL BUTYL ETHER	20 ppm	N.E.	50 ppm
Nickel	1.5 mg/m ³	N.E.	1 mg/m ³
CARBON BLACK	3 mg/m ³	N.E.	3.5 mg/m ³
N-Ethylmorpholine	5 ppm	N.E.	20 ppm
No Chemical Name Found	N.E.	N.E.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
Sk = Skin Sensitizer N.E. = Not Established

Personal Protection



RESPIRATORY PROTECTION: In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.



SKIN PROTECTION: The selected protective gloves have to satisfy the specifications of EU Regulation (EU) 2016/425 and the standard EN 374 derived from it. Protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Follow the skin protection plan. Wear protective gloves/ protective clothing. Wear suitable protective clothing.



EYE PROTECTION: Tightly fitting safety goggles. If splashes are likely to occur, wear: Face-shield.



OTHER PROTECTIVE EQUIPMENT: No Information



HYGIENIC PRACTICES: Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday. Regular cleaning of equipment, work area and clothing is recommended.



ENGINEERING CONTROLS: Ensure adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation.

9. Physical and Chemical Properties

Appearance:	Opaque	Physical State:	Liquid
Odor:	Solvent	Odor Threshold:	No Information
Density, lb/gal:	8.984	pH:	No Information
Specific Gravity:	1.079	Viscosity:	No Information
Freeze Point, °C:	No Information	Partition Coefficient, n-octanol/ water:	No Information
Solubility in Water:	No Information	VOC (lb/gal)	0.52
Decomposition temperature, °C	No Information	Explosive Limits, %:	2.6 - 12.5
Boiling Range, °C:	>= 100	Flash Point:	94 °C / 201 °F
		Auto-Ignition Temperature, °C	No Information

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

REACTIVITY: Stable under normal conditions.

STABILITY: To avoid thermal decomposition, do not overheat.

CONDITIONS TO AVOID: None known.

INCOMPATIBILITY: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological Information



Practical Experiences

MOST IMPORTANT SYMPTOMS: No Information

EFFECT OF OVEREXPOSURE - INHALATION: No Information

EFFECT OF OVEREXPOSURE - INGESTION: No Information

EFFECT OF OVEREXPOSURE - SKIN CONTACT: May cause sensitization of susceptible persons. May cause allergic skin reaction. May cause sensitization by skin contact. Direct skin contact may cause irritation.

EFFECT OF OVEREXPOSURE - EYE CONTACT: No Information

EFFECT OF OVEREXPOSURE - CHRONIC HAZARDS: No Information

PRIMARY ROUTE(S) OF ENTRY: No Information

CARCINOGENICITY: This product contains a known or suspected carcinogen.

Chemical Name	ACGIH	IARC	OSHA
ETHYLENE GLYCOL BUTYL ETHER	A3	Group 3	
Nickel	A5	Group 2B	X
CARBON BLACK	A3	Group 2B	X

Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)
 A3 - Confirmed Animal Carcinogen
 A5 - Not Suspected as a Human Carcinogen
 IARC (International Agency for Research on Cancer)
 Group 2B - Possibly carcinogenic to humans
 Group 3 - Unclassifiable as to carcinogenicity in humans
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
57-55-6	PROPYLENE GLYCOL	20000 mg/kg Rat	20800 mg/kg Rabbit	N.I.
111-76-2	ETHYLENE GLYCOL BUTYL ETHER	470 mg/kg Rat	>2000 mg/kg Rabbit	15 (Vapor)
7440-02-0	Nickel	>9000 mg/kg Rat	N.I.	>10.2 mg/L Rat (Dust)
1333-86-4	CARBON BLACK	>10000 mg/kg Rat	N.I.	4.6 mg/L Rat (Dust)
100-74-3	N-Ethylmorpholine	1780 mg/kg Rat	1924 mg/kg Rabbit	N.I.

N.I. = No Information

12. Ecological Information

ECOLOGICAL INFORMATION: No Information

PERSISTENCE AND DEGRADABILITY: No Information

BIOACCUMULATIVE POTENTIAL: Discharge into the environment must be avoided.

MOBILITY IN SOIL: No Information

OTHER ADVERSE ECOLOGICAL EFFECTS: No Information

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
DIPROPYLENE GLYCOL BUTYL ETHER 29911-28-2	No Information	LC50 96 h <i>Poecilia reticulata</i> 841 mg/L	No Information
PROPYLENE GLYCOL 57-55-6	EC50 96 h <i>Pseudokirchneriella subcapitata</i> 19000 mg/L	LC50 96 h <i>Oncorhynchus mykiss</i> 51600 mg/L, LC50 96 h <i>Oncorhynchus mykiss</i> 41 - 47 mg/L, LC50 96 h <i>Pimephales promelas</i> 51400 mg/L, LC50 96 h <i>Pimephales promelas</i> 710 mg/L	EC50 48 h <i>Daphnia magna</i> >1000 mg/L
ETHYLENE GLYCOL BUTYL ETHER 111-76-2	No Information	LC50 96 h <i>Lepomis macrochirus</i> 1490 mg/L, LC50 96 h <i>Lepomis macrochirus</i> 2950 mg/L	EC50 48 h <i>Daphnia magna</i> >1000 mg/L
Nickel 7440-02-0	EC50 72 h <i>Pseudokirchneriella subcapitata</i> 0.18 mg/L, EC50 96 h <i>Pseudokirchneriella subcapitata</i> 0.174 - 0.311 mg/L	LC50 96 h <i>Brachydanio rerio</i> >100 mg/L, LC50 96 h <i>Cyprinus carpio</i> 1.3 mg/L, LC50 96 h <i>Cyprinus carpio</i> 10.4 mg/L	EC50 48 h <i>Daphnia magna</i> >100 mg/L, EC50 48 h <i>Daphnia magna</i> 1 mg/L

13. Disposal Information



Product

DISPOSAL INFORMATION: Disposal should be in accordance with applicable regional, national and local laws and regulations. Dispose of contents/container to an approved waste disposal plant.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent media. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations. Dispose of material in accordance with all federal, state and local regulations.

CONTAMINATED PACKAGING: Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste:

Chemical Name	CAS-No.
Iron	7439-89-6
Chromium	7440-47-3
ETHYLENE GLYCOL BUTYL ETHER	111-76-2
Nickel	7440-02-0
CARBON BLACK	1333-86-4
N-Ethylmorpholine	100-74-3
Molybdenum	7439-98-7

14. Transport Information

DOT

UN No:	N/A
Proper Shipping Name:	Not Regulated
Hazard Class:	N/A
Hazard Subclass:	N/A
Packing Group:	N/A

IMDG

UN No	N/A
IMDG/GGVSee Class:	N/A
EmS-No:	N/A
Packing Group:	N/A
Proper Shipping Name:	Not Regulated
Primary Shipping Hazard:	No Information
Marine Pollutant:	Not Applicable
Shipping Hazard (Marine Pollutant):	Not applicable

IATA

UN No	N/A
ICAO/IATA Class:	N/A
Packing Group:	N/A
Proper Shipping Name:	Not Regulated
Primary Shipping Hazard:	No Information

MEX

UN No	N/A
Proper Shipping Name:	Not Regulated
Hazard Class:	N/A
Hazard Subclass:	N/A
Packing Group:	N/A

15. Regulatory Information

U.S. Federal Regulations:

CAA (Clean Air Act):

U.S. -CAA (Clean Air Act) - 1990 Hazardous Air Pollutants. This product contains the following HAPs:

None

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Nickel	N/A	X	X	N/A

CERCLA - SARA Hazard Category:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Carcinogenicity, Respiratory or Skin Sensitization

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372: .

Chemical Name	CAS-No.	Wt %
Nickel	7440-02-0	0.31

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States: All Components of the product are listed or excluded from listing on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory except as provided below:

No TSCA components exist in this product.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
DIPROPYLENE GLYCOL BUTYL ETHER					X
PROPYLENE GLYCOL		X	X		X
Chromium		X	X	X	
ETHYLENE GLYCOL BUTYL ETHER	X	X	X		X
Nickel		X	X	X	X
CARBON BLACK	X	X	X	X	X
N-Ethylmorpholine	X	X	X		X
Molybdenum	X	X	X		
No Chemical Name Found					X
SODIUM NITRATE	X	X	X		
1,4-Dioxane		X	X	X	

CALIFORNIA PROPOSITION 65 CARCINOGENS:



WARNING

The following ingredients present in the product are known to the state of California to cause Cancer:

Chemical Name
Nickel
CARBON BLACK

CAS-No.
7440-02-0
1333-86-4

CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS:



WARNING

The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

No Proposition 65 Reproductive Toxins exist in this product.

International Regulations: As follows -

INTERNATIONAL INVENTORIES:

TSCA -
DSL -
DSL/NDL -
EINECS/ELINCS -
ENCS -
IECSC -
KECI -
PICCS -
AICS -
NZIoC -
TCSI -

Legend:

TSCA United States Toxic Substances Control Act Section 8(b) Inventory
DSL Canadian Domestic Substances List
DSL/NDL Canadian Domestic Substances List/Canadian Non-Domestic Substances List
EINECS/ELINCS European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS Japan Existing and New Chemical Substances
IECSC China Inventory of Existing Chemical Substances
KECL Korean Existing and Evaluated Chemical Substances
PICCS Philippines Inventory of Chemicals and Chemical Substances
AICS Australian Inventory of Chemical Substances
NZIoC New Zealand Inventory of Chemicals
TCSI Taiwan Chemical Substance Inventory

Mexico - Grade Serious risk, Grade 4

Chemical Name	CAS-No.	Carcinogenic Status	Exposure Limits
DIPROPYLENE GLYCOL BUTYL ETHER	29911-28-2	N/A	N.D.
PROPYLENE GLYCOL	57-55-6	N/A	N.D.
ETHYLENE GLYCOL BUTYL ETHER	111-76-2	A3	Mexico TWA: 20 ppm
Nickel	7440-02-0	A5	Mexico TWA: 1.5 mg/m3
CARBON BLACK	1333-86-4	A3	Mexico TWA: 3 mg/m3
N-Ethylmorpholine	100-74-3	N/A	Mexico TWA: 5 ppm
No Chemical Name Found		N/A	N.D.

16. Other Information

Revision Date: 10/30/2025 Supersedes Date: 10/3/2025

Datasheet produced by: Regulatory Department

NFPA Rating:

Health:	2	Flammability:	1	Instability:	0
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HMIS Ratings:

Health:	2*	Flammability:	1	Reactivity:	0	Personal Protection:	X
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Volatile Organic Compounds, gr/ltr: 62

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product where instructions and recommendations are not followed.

ObjectId: 194501 125245 209166