

SAFETY DATA SHEET

1. Identification

Product identifier	X-1047	
Other means of identification	SDS-00049	
SDS number	*See Section 16	
Product Code	Corrosion Inhibitor	
Recommended use	None known.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Company name	ABB Installation Products Inc.	
Address	860 Ridge Lake Blvd. Memphis, TN 38120 US	
Telephone	901-252-5000 ext.8324	
E-mail	Not available.	
Emergency phone number	INFOTRAC - 24 HOURS:	1-800-535-5053 +1 352-323-3500 (Outside USA)

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Not classified.	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word	None.	
Hazard statement	Toxic to aquatic life with long lasting effects.	
Precautionary statement		
Prevention	Avoid release to the environment.	
Response	Collect spillage.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Zinc oxide	1314-13-2	1 - 5

All concentrations are in percent by weight (kg) unless ingredient is a gas. Gas concentrations are in percent by volume (l).

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
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Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. May cause stomach distress, nausea or vomiting.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Will burn if involved in a fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. In case of spills, beware of slippery floors and surfaces. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Be aware of potential for surfaces to become slippery. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Zinc oxide (CAS 1314-13-2)	PEL	5 mg/m3	Fume.
		5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Zinc oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
	TWA	2 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Zinc oxide (CAS 1314-13-2)	Ceiling	15 mg/m ³	Dust.
	STEL	10 mg/m ³	Fume.
	TWA	5 mg/m ³	Dust.
		5 mg/m ³	Fume.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	Occupational Exposure Limits are not relevant to the current physical form of the product.
Appropriate engineering controls	Good general ventilation 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.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Skin protection	
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Physical state	Solid.
Form	Paste. Thick grease
Color	Gray.
Odor	Not available.
Odor threshold	Not available.
pH	Not applicable
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 250 °C / > 500 °F
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat.
Incompatible materials	None known.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Not a likely route of exposure under normal product handling conditions.
Skin contact	May cause skin irritation.
Eye contact	May cause eye irritation.
Ingestion	May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling. May cause stomach distress, nausea or vomiting.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	May cause eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed.
NTP Report on Carcinogens	Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	Not regulated.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Further information	This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Zinc oxide (CAS 1314-13-2)		
Aquatic		
Crustacea	LC50 Water flea (Daphnia magna)	0.098 mg/l, 48 Hours
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	No data available.	
Mobility in soil	Expected to have low mobility in soil.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN3077
UN proper shipping name	Environmentally hazardous substances, solid, n.o.s. (Zinc oxide)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33
Packaging exceptions	155
Packaging non bulk	213
Packaging bulk	240

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Zinc oxide)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III

Environmental hazards**Marine pollutant** Yes**EmS** F-A, S-F**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**General information** DOT Regulated Marine Pollutant.**15. Regulatory information****US federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Zinc oxide (CAS 1314-13-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical No**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Zinc oxide	1314-13-2	1 - 5

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.**US state regulations****US. Massachusetts RTK - Substance List**

Zinc oxide (CAS 1314-13-2)

US. New Jersey Worker and Community Right-to-Know Act

Zinc oxide (CAS 1314-13-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Zinc oxide (CAS 1314-13-2)

US. Rhode Island RTK

Zinc oxide (CAS 1314-13-2)

California Proposition 65California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 16-February-2016

Revision date 18-June-2024

Version H

Further information

HMIS® ratings
 Health: 1
 Flammability: 1
 Physical hazard: 0

NFPA ratings



Disclaimer

ABB Installation Products Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Product Codes

ACL-1036-2N	ACL-1427-4NN30	ACL-527-2N	ACLS-677-4N	AYTF-1824-4NN
ACL-1036-4N	ACL-1465-4N	ACL-527-2N90	ACLS-677-4N90	AYTF-1824-4NN-EHV
ACL-1036-4N45	ACL-1465-4N15	ACL-527-4N	ACLS-684-2N	AYTF-200-4NN-EHV
ACL-1036-4N90	ACL-1465-4N90	ACL-527-4N90	ACLS-736-2N	AYTF2-1036-4NN
ACL-1036-4NN	ACL-1465-4NN	ACL-527-4NN	ACLS-736-4N	AYTF2-1632-4NN
ACL-1036-4NN15-EHV	ACL-1465-4NN15-EHV	ACL-563-2N	ACLS-736-4N90	AYTF-2200-4NN
ACL-1036-4NN45	ACL-1465-4NN45	ACL-563-4N	ACLS-858-4N	AYTF-33A-2N
ACL-1036-4NN90	ACL-1465-4NN90	ACL-575-2N	ACLS-930-4N	AYTF-372-4N
ACL-1036-4NN90-EHV	ACL-1465-4NN90-EHV	ACL-575-2N90	AYCT-1036-1036	AYTF-4/0-2N
ACL-1036-4NN-EHV	ACL-1465-4NN-EHV	ACL-575-4N	AYCT-1108-1108	AYTF-4/0-4N
ACL-1108-2N	ACL-1506-4N	ACL-575-4N90	AYCT-1216-1216	AYTF-40-4N-HM
ACL-1108-2N90	ACL-1506-4N15-EHV	ACL-593-4N	AYCT-1246-1216-EHV	AYTF-50-2N
ACL-1108-4N	ACL-1506-4N45	ACL-593-4N90	AYCT-1246-1246	AYTF-50-2NSL
ACL-1108-4N15	ACL-1506-4N90	ACL-677-4N	AYCT-1246-814	AYTF-50-4N
ACL-1108-4N45	ACL-1506-4NN	ACL-684-2N	AYCT-1299-1299	AYTF-527-4N
ACL-1108-4N90	ACL-1506-4NN15	ACL-684-2N45	AYCT-1465-1036	AYTF-56-2N

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ACL-1108-4NN	ACL-1506-4NN45	ACL-684-2N90	AYCT-1465-1465	AYTF-563-2N
ACL-1108-4NN45	ACL-1506-4NN90	ACL-684-4N	AYCT-1506-1506	AYTF-563-4N
ACL-1108-4NN45-EHV	ACL-1506-4NN-EHV	ACL-684-4N45	AYCT-1824-1824	AYTF-563-4NN
ACL-1108-4NN90	ACL-1545-2N	ACL-684-4N90	AYCT-56-56	AYTF-575-4N
ACL-1108-4NN90-EHV	ACL-1545-4NN	ACL-684-4NN	AYCT-677-677	AYTF-63-4N
ACL-1108-4NN-EHV	ACL-1632-4NN	ACL-736-2N90	AYCT-684-684	AYTF-646-4NN
ACL-1126-2N	ACL-1632-4NN-EHV	ACL-736-4N	AYCT-736-736	AYTF-65-4NN
ACL-1126-2N90	ACL-1737-4N	ACL-736-4N45	AYCT-75-75	AYTF-677-2N
ACL-1126-4N	ACL-1737-4N15	ACL-736-4N90	AYCT-80-35	AYTF-677-4N
ACL-1126-4N90	ACL-1737-4N15-EHV	ACL-736-4NN	AYCT-80-80	AYTF-684-2N
ACL-1126-4NN	ACL-1737-4N-EHV	ACL-795-2N	AYCT-858-527	AYTF-684-4N
ACL-1126-4NN45	ACL-1762-4N	ACL-795-2N90	AYCT-858-858	AYTF-736-4N
ACL-1126-4NN90	ACL-1762-4NN-EHV	ACL-795-4N	AYT2F-1108-4NN-EHV	AYTF-795-4N
ACL-1152-2N	ACL-1824-4NN	ACL-795-4N45	AYTF-103-4NN	AYTF-795-4NN
ACL-1171-2N	ACL-1824-4NN30-EHV	ACL-795-4N90	AYTF-1036-4N	AYTF-80-4N
ACL-1171-2N90	ACL-1824-4NN90	ACL-795-4NN	AYTF-1036-4NN	AYTF-814-4N
ACL-1171-4N	ACL-1824-4NN-EHV	ACL-814-2N	AYTF-1051-4N	AYTF-858-2N
ACL-1171-4N15	ACL2-1036-4NN	ACL-814-2N15	AYTF-1108-2N	AYTF-858-4N
ACL-1171-4N45	ACL2-1036-4NN90	ACL-814-2N90	AYTF-1108-4N	AYTF-858-4NN
ACL-1171-4N90	ACL2-1063-4NN	ACL-814-4N	AYTF-1108-4NN	AYTF-90-4N
ACL-1171-4NN	ACL2-1108-4N	ACL-858-2N	AYTF-1108-4NN-EHV	AYTF-90-4NN
ACL-1171-4NN-45EHV	ACL2-1108-4NN	ACL-858-2N90	AYTF-1126-4N	AYTF-930-4N
ACL-1171-4NN-EHV	ACL2-1126-4N	ACL-858-4N	AYTF-1126-4NN	AYTF-930-4NN
ACL-1216-2N45	ACL2-1126-4NN-EHV	ACL-858-4N15	AYTF-1126-4NN-EHV	AYTF-990-2N
ACL-1216-4N	ACL2-1171-4NN	ACL-858-4N30	AYTF-1171-4N	AYTF-990-4N
ACL-1216-4N45-EHV	ACL2-1171-4NN45-EHV	ACL-858-4N45	AYTF-1171-4NN	ACL-677-2N90
ACL-1216-4N90	ACL2-1171-4NN-EHV	ACL-858-4N90	AYTF-120-4N	ACL-677-2N45
ACL-1216-4N-EHV	ACL2-1216-4NN	ACL-858-4NN	AYTF-1216-4N	
ACL-1216-4NN	ACL2-1299-4NN-EHV	ACL-893-2N	AYTF-1216-4NN	
ACL-1216-4NN45-EHV	ACL2-1465-4NN-EHV	ACL-893-4N	AYTF-1216-4NN-EHV	
ACL-1216-4NN90	ACL2-1506-4NN	ACL-930-2N	AYTF-1299-2N	
ACL-1216-4NN90-EHV	ACL2-1506-4NN45	ACL-930-4N	AYTF-1299-4N	
ACL-1216-4NN-EHV	ACL2-1506-4NN90	ACL-930-4N90	AYTF-1299-4NN	
ACL-1216-4NN-EHV-HWS	ACL2-1632-4NN	ACL-930-4NN	AYTF-1299-4NN-EHV	
ACL-1246-4N	ACL2-1632-4NN-8	ACL-930-4NN90	AYTF-130-4N	
ACL-1246-4NN	ACL2-1762-4NN	ACLS-1036-4N	AYTF-1382-4N	
ACL-1299-2N	ACL2-1762-4NN90	ACLS-1036-4N90	AYTF-1382-4N-EHV	
ACL-1299-2N90-EHV	ACL2-1824-4NN-EHV	ACLS-1036-4NN	AYTF-1382-4NN	
ACL-1299-4N	ACL-2200-4NN	ACLS-1126-4N	AYTF-1382-4NN-EHV	
ACL-1299-4N45	ACL-2200-4NN90	ACLS-1126-4NN	AYTF-140-4N	
ACL-1299-4N90	ACL2-684-4N	ACLS-1171-4NN	AYTF-140-4NN	
ACL-1299-4NN	ACL2-684-4NN	ACLS-1171-4NN90	AYTF-1427-4NN	
ACL-1299-4NN45	ACL2-684-4NN90	ACLS-1299-4NN-EHV	AYTF-1465-4N	
ACL-1299-4NN90	ACL2-795-4NN	ACLS-1465-4NN	AYTF-1465-4NN	
ACL-1299-4NN-EHV	ACL2-795-4NN90	ACLS-1465-4NN15	AYTF-1465-4NN90	
ACL-1382-4N	ACL-292-2N	ACLS-1465-4NN45	AYTF-1465-4NN-EHV	
ACL-1382-4N15	ACL-292-2N45	ACLS-1762-4NN	AYTF-1506-4N	

ACL-1382-4N-EHV	ACL-316-2N	ACLS-1762-4NN-EHV	AYTF-1506-4NN
ACL-1382-4NN	ACL-372-2N	ACLS2-1382-4NN90	AYTF-1545-4N
ACL-1382-4NN45	ACL-372-4N	ACLS-292-2N	AYTF-1545-4NN
ACL-1382-4NN90	ACL-398-2N	ACLS-328-2N	AYTF-1632-4NN
ACL-1382-4NN-EHV	ACL-398-4N	ACLS3982N	AYTF-1762-4N
ACL-1427-2N	ACL-418-2N	ACLS-527-4N	AYTF-1762-4NN
ACL-1427-4N	ACL-418-4N	ACLS-563-4N	AYTF-1762-4NN-EHV