MATERIAL SAFETY DATA SHEET

SECTION I IDENTIFICATION				
SUPPLIER NAME:	PRODUCT TYPE: MIG WIRE FOR			
VANGUARD STEEL LTD.	STAINLESS STEEL			
ADDRESS:	TRADE NAME:			
2160 MEADOWPINE BLVD., MISSISSAUGA ONTARIO CANADA	BONARC ER309LSi			
TELEPHONE NUMBER:	SIZE:			
905-821-1100	ALL SIZES			
DATE PREPARED:	CLASSIFICATION			
MARCH 1, 2015	AWS ER309LSi			

SECTION II HAZARDOUS MATERIALS				
COVERING AND FLUX INGREDIENTS	WT. %	TLV mg/m ³	SUPPLEMENTAL INFORMATION	
STAINLESS STEEL WIRE	100.00		(*) NOT LISTED	
			NUISANCE VALUE	
NOMINAL WIRE COMPOSITION			MAXIMUM 10 mg/m ³	
CARBON	0.02			
SILICON	0.71	10 (*)		
MANGANESE	1.59	1.00		
CHROMIUM	23.22	0.50		
NICKEL	13.65	1.00		
PHOSPORUS	0.023			
SULFUR	0.002			
MOLYBDENUM	0.09	10.0		
IRON	BAL	10 (*)		
OTHERS	WT. %	TLV mg/m ³		

SECTION III -- FIRE AND EXPLOSION HAZARD DATA

NON-FLAMMABLE:

WELDING ARC AND SPARKS CAN IGNITE COMBUSTABLES AND FLAMMABLE PRODUCTS SEE Z49.1 REFERENCED IN SECTION VI

MATERIAL SAFETY DATA SHEET

SECTION IV HEALTH HAZARD DATA				
THRESHOLD LIMIT VALUE:	MAXIMUM FUME	E EXPOSURE	5.0 mg/m ³	
EFFECT OF OVEREXPOSURE:	WELDING FUME	ES MAY RESULT I	N DISCOMFORT SUC	H AS DIZZINESS,
NAUSEA OR IRRITATION OF NOSE, THROAT, OR EYES				
ARC RAYS CAN INJURE EYES AND BURN SKIN, ELECTRIC SHOCK CAN KILL				
EMERGENCY AND FIRST AID PR	ROCEDURES:	CALL FOR	MEDICAL AID. IF BRE	EATHING IS DIFFICULT
		GIVE OXY	GEN. IN ALL CASES C	CALL A PHYSICIAN

SECTION V REACTIVITY DATA						
STABILITY	UNSTABLE		CONDITIONS TO AVOID			
	STABLE	P	NOT NECESSARY			
INCOMPATIBILITY (MATERIALS TO AVOID): NOT NECESSARY						
HAZARDOUS DECOMPOSITION PRODUCTS: WELDING FUMES AND GASES CANNOT BE CLASSIFIED SIMPLY.						
THE COMPOSITION AND QUANTITY OF BOTH ARE DEPENDANT ON THE METAL BEING WELDED, THE PROCESS,						
ELECTRODES USED AND PROCEDURE.						
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID			
	WILL NOT OCCUR	P	NOT NECESSARY			

SECTION VI -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIALS ARE RELEASED OR SPILLED: NOT NECESSARY

WASTE DISPOSAL METHOD: USE SCRAP DISPOSAL IN AN ENVIRONMENTALLY ACCEPTABLE MANNER

ACCORDING TO LOCAL REGULATIONS UNLESS OTHERWISE NOTED.

SECTION VII -- SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: USE RESPIRABLE FUME RESPIRATOR WHEN WELDING IN CONFINED SPACE.

USE ENOUGH VENTILATION. EXHAUST AT THE ARC, OR BOTH, TO KEEP FUMES AND GASES AWAY FROM YOUR BREATHING ZONE AND THE GENERAL AREA.

PROTECTIVE GLOVES: YES, WHEN WELDING.

EYE PROTECTION : SHIELD NECESSARY WHEN WELDING.

OTHER PROTECTIVE EQUIPMENT: MAY INCLUDE ARM PROTECTORS, APRONS, SHOULDER PROTECTION, HATS,

AND DARK SUBSTANTIAL CLOTHING. DO NOT ALLOW LIVE ELECTRODES TO CONTACT SKIN.

SECTION VIII -- SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HAULING AND STORING: KEEP DRY

OTHER PRECAUTIONS: READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTION AND THE

PRECAUTIONARY LABEL ON THE PRODUCT.