



DEEP SEAL 20

PENETRATING WATER REPELLENT

HAZARD RATING

4=EXTREME
3=HIGH
2=MODERATE
1=SLIGHT
0=INSIGNIFICANT

HEALTH	1
FLAMMABILITY	1
REACTIVITY	0

MATERIAL SAFETY DATA SHEET

GENERAL INFORMATION

PRODUCT IDENTIFICATION: BRAVO DEEP SEAL 20

VOC CONTENT: 91 GRAMS/LITER OR 0.76#/GAL.

CATEGORY: WATER REPELLANT

COMMON NAME: ALKOXY-SILANE, EMULSION

DOT SHIPPING NAME: IN CONTAINERS GREATER THAN AND LESS THAN 119 GALS: BRAVO DEEP SEAL 20 (NON-REGULATED)

HEALTH AND SAFETY COMBUSTIBLE LIQUID: THIS PRODUCT IS A SOLVENT H2O EMULSION. ALL PRECAUTIONS PROVIDED ARE FOR THE SOLVENT PORTION OF WHICH THIS CONTAINS LESS THAN 20%: COMBUSTIBLE LIQUID: USE ONLY WITH ADEQUATE VENTILATION: IF SWALLOWED, DO NOT INDUCE VOMITING: USE OF SOLVENT RESISTANT GLOVES, GOGGLES AND OTHER PROTECTIVE CLOTHING IS ADVISED WHEN HANDLING THIS PRODUCT: FLASH POINT: SOLVENT H2O EMULSION 157 DEGREES F (NON-FLAMMABLE)

SECTION I

DISTRIBUTOR: Essroc – Italcementi Group
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PREPARED: June 4, 2010
PREPARED BY: Essroc MSDS Development Committee

SECTION II HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENTS	CAS. NO	%	HAZARD DATA
OCTYLTRIETHOXYSILANE	2943-75-1	20%	NONE ACGIH-TLV NONE
UNIDENTIFIED SILOXANE IMPURITIES	NONE	TRACE	NOT ESTABLISHED

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 210 F **MELTING POINT:** N/A
SPECIFIC GRAVITY (H2O=1): .982 **VAPOR PRESSURE:** NA
VAPOR DENSITY (AIR=1): >1 **VOLATILES BY VOL:** 100%
SOLUBILITY IN H2O % BY WT: 100%
EVAPORATION RATE (BUOH=1): 0.12 PH (AS IS): 5-6 pH (1% SOLN): NA
APPEARANCE AND ODOR: WATER WHITE TO EMULSION WITH PAINT SOLVENT ODOR

SECTION IV FIRE AND EXPLOSION DATA

FLASH POINT: (TEST METHOD): > 212° F TAG CLOSED UP

AUTOIGNITION TEMPERATURE: ND

FLAMMABLE LIMITS IN AIR: % BY VOL: ND

LOWER: ND **UPPER:** ND

EXTINGUISHING MEDIA: REGULAR FOAM, CARBON DIOXIDE OR DRY CHEMICAL. WATER MAY BE USED TO REDUCE THE RATE OF BURNING AND FOR COOLING PURPOSES

FIRE HAZARDS: FLAMMABLE VAPORS MAY ACCUMULATE IN THE CONTAINER HEADSPACE ON FORMATION OF HYDROLYSIS BY-PRODUCTS.

SPECIAL FIRE FIGHTING PROCEDURES: THE USE OF SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE OPERATED IN PRESSURE- DEMAND OR OTHER POSITIVE PRESSURE MODE. UNUSUAL FIRE AND EXPLOSION HAZARD: VAPOR IS HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR THROUGH VENTILATION SYSTEM A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.

SECTION V REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: PRODUCT IS STABLE.

INCOMPATIBILITY: THIS PRODUCT IS INCOMPATIBLE WITH STRONG OXIDIZING AGENTS STRONG ACIDS OR BASES AND SELECTED AMINES.

HAZARDOUS DECOMPOSITION PRODUCT THERMAL DECOMPOSITION IN THE PRESENCE OF AIR YIELD CARBON MONOXIDE AND/OR CARBON DIOXIDE, SI02 ACETALDEHYDE AND HYDROCARBON VOLITILES.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION VI HEALTH HAZARD INFORMATION

HEALTH HAZARD DATA HAZARD CLASSIFICATION BASIS FOR CLASSIFICATION SOURCE

ROUTES OR EXPOSURE/INHALATION: THIS PRODUCT MAY CREATE BREATHING DIFFICULTIES. DIZZINESS, LIGHTHEADEDNESS WHEN WORKING IN AREAS WITH HIGH VAPORCONCENTRATION.

SKIN CONTACT: THIS PRODUCT MAY RESULT IN SKIN IRRITATION UPON PROLONGED/REPEATED CONTACT.

SKIN ABSORPTION: SEE ABOVE

EYE CONTACT: THIS PRODUCT MAY BE AN EYE IRRITANT.

INGESTION: SMALL AMOUNTS OF LIQUID ASPIRATED INTO THE RESPIRATORY SYSTEM DURING INGESTION, OR FROM VOMITING, MAY CAUSE BRONCHOPNEUMONIA OR PULMONARY EDEMA. DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ATTENTION.

EFFECTS OF OVEREXPOSURE TLV-50 PPM

ACUTE OVEREXPOSURE: ANESTHESIA, HEADACHE, NAUSEA, DIZZINESS: MODERATE IRRITATION BY LIQUID TO SKIN AND EYES.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH WITH LARGE QUANTITIES OF WATER FOR AT LEAST 15 MINUTES. SEEK IMMEDIATE MEDICAL ATTENTION.

SKIN: WASH WITH SOAP AND LARGE QUANTITIES OF WATER. SEEK MEDICAL ATTENTION IF SKIN IRRITATION DEVELOPS AND PERSISTS.

INHALATION: MOVE TO LOCATION FREE FROM VAPORS. IF BREATHING STOPS, BEGIN ARTIFICIAL RESPIRATION AND SEEK IMMEDIATE MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. SEEK IMMEDIATE MEDICAL ATTENTION.

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

WASTE DISPOSAL METHOD: IF POSSIBLE, PUMP TO CONTROLLED CONTAINMENT AREA. ABSORB ON CLAY OR SAND. DISPOSE OF IN COMPLIANCE WITH EPA, STATE, AND LOCAL REGULATIONS.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

LAND SPILL: ELIMINATE SOURCES OF IGNITION. PREVENT ADDITIONAL DISCHARGE OF MATERIAL; IF POSSIBLE TO DO SO WITHOUT HAZARD. FOR SMALL SPILLS IMPLEMENT CLEANUP PROCEDURES: FOR LARGE SPILL IMPLEMENT CLEAN UP PROCEDURES AND, IF IN PUBLIC AREA, KEEP PUBLIC AWAY AND ADVISE AUTHORITIES. ALSO, IF THIS PRODUCT IS SUBJECT TO CERCLA REPORTING NOTIFY THE NATIONAL RESPONSE CENTER. PREVENT LIQUID FROM ENTERING SEWERS, WATERCOURSES, OR LOW AREAS. CONTAIN SPILLED LIQUID WITH SAND OR EARTH. DO NOT USE COMBUSTIBLE MATERIALS SUCH AS SAWDUST. RECOVER BY PUMPING (USE AN EXPLOSION PROOF OR HAND PUMP) OR WITH A SUITABLE ABSORBENT. CONSULT AN EXPERT ON DISPOSAL OF RECOVERED MATERIAL AND ENSURE CONFORMITY TO LOCAL DISPOSAL REGULATIONS.

WATER SPILL: REMOVE FROM SURFACE BY SKIMMING OR WITH SUITABLE ABSORBENTS. IF ALLOWED BY LOCAL AUTHORITIES AND ENVIRONMENTAL AGENCIES, SINKING AND/OR SUITABLE DISPERSANTS MAY BE USED IN ON-CONFINED WATERS. CONSULT AN EXPERT ON DISPOSAL OF RECOVERED MATERIAL AND ENSURE CONFORMITY TO LOCAL DISPOSAL REGULATIONS.

SECTION VIII CONTROL MEASURES

VENTILATION REQUIREMENTS: LOCAL MECHANICAL VENTILATION MAY BE SUFFICIENT TO KEEP PRODUCT VAPOR CONCENTRATIONS WITHIN SPECIFIED TIME- WEIGHTED TLV RANGES. IF GENERAL VENTILATION PROVES INADEQUATE TO MAINTAIN SAFE VAPOR CONCENTRATIONS, SUPPLEMENTAL LOCAL EXHAUST MAY BE REQUIRED. OTHER SPECIAL PRECAUTIONS SUCH AS RESPIRATORY MASKS OR ENVIRONMENTAL CONTAINMENT DEVICES MAY BE REQUIRED IN EXTREME CASES.

RESPIRATORY (SPECIFY IN DETAIL): THE USE OF RESPIRATORY PROTECTION DEPENDS ON VAPOR CONCENTRATION ABOVE THE TIME WEIGHTED TLV: USE OF A OSHA APPROVED CARTRIDGE RESPIRATOR OR GAS MASK OR AIRPACK.

EYE: CHEMICAL GOGGLES AND/OR FACE SHIELDS ARE RECOMMENDED TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY.

GLOVES: THE USE OF IMPERMEABLE GLOVES IS ADVISED TO PREVENT SKIN IRRITATION IN SENSITIVE INDIVIDUALS.

OTHER CLOTHING AND EQUIPMENT: IMPERMEABLE APRONS AND HELMETS (HEAD COVER) ARE ADVISED WHEN WORKING WITH THIS PRODUCT. THE AVAILABILITY OF EYE WASHES AND SAFETY SHOWERS IN WORK AREAS IS RECOMMENDED.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS: FIRE FIGHTING: WATER MAY BE UNSUITABLE AS AN EXTINGUISHING MEDIA BUT HELPFUL IN KEEPING ADJACENT CONTAINERS COOL. AVOID SPREADING BURNING LIQUID WITH WATER USED FOR COOLING PURPOSES. PERSONNEL SHOULD AVOID INHALATION OF VAPORS. PERSONAL CONTACT WITH THE PRODUCT SHOULD BE AVOIDED. SHOULD CONTACT BE MADE REMOVE SATURATED CLOTHING AND FLUSH AFFECTED AREAS WITH WATER.

OTHER HANDLING AND STORAGE REQUIREMENTS: KEEP PRODUCT CONTAINERS COOL, DRY AND AWAY FROM SOURCES OF IGNITION. USE AND STORE THIS PRODUCT WITH ADEQUATE VENTILATION EQUIVALENT TO FRESH AIR.

HMIS HAZARD RATINGS:

	NPCA-HMIS	NFPA 704	KEY
HEALTH	1	1	4=SEVERE
FLAMMABILITY	1	1	3=SERIOUS
REACTIVITY	1	1	2=MODERATE
			1=SLIGHT
			0=MINIMAL

SECTION X REGULATORY INFORMATION

TSCA: THE SOLVENT PORTION OF THIS PRODUCT IS LISTED ON THE TSCA INVENTORY AS A UVCB (UNKNOWN, VARIABLE COMPOSITION OR BIOLOGICAL) CHEMICAL AT CAS REGISTRY NUMBER 64742-95-6.

CERCLA: IF THE REPORTABLE QUANTITY OF THIS PRODUCT IS ACCIDENTALLY SPILLED, THE INCIDENT IS SUBJECT TO THE PROVISIONS OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) AND MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER BY CALLING 800-424-8802. THE REPORTABLE SPILL QUANTITY OF THIS PRODUCT IS 5,000 POUNDS. DELAYED HEALTH, FIRE. FEDERAL:

SECTION XI OTHER INFORMATION

Abbreviations:

ACGIH	American Conference of Government Industrial Hygienists
ASTM	American Society of Testing Materials
CAS	Chemical Abstract Service
CFR	Code of Federal Regulations
DOT	Department of Transportation
IARC	International Agency for Research
IDLH	Immediately dangerous to live and health (NIOSH).
m ³	cubic meter
mg	Milligram
mm	millimeter
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicity Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RQ	Reportable Quantities
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TWA	Time Weighted Average
URT	Upper Respiratory Tract
WHMIS	Workplace Hazardous Material Information System

This product should only be used by knowledgeable persons. While the information provided in this material safety data sheet is believed to provide a useful summary of the hazards of this product as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. SELLER MAKES NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY ESSROC - ITALCEMENTI GROUP., except that the product shall conform to contracted specifications. The information provided herein was believed by Essroc to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach or warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no vent Seller be liable for incidental or consequential damages, Buyer's claim is based on contract, breach of warranty, negligence or otherwise.