

SAFETY DATA SHEET (SDS)

Revised: May 2018

SECTION 1 – IDENTIFICATION

Trade Name: Vulcan 7018 **Manufacturer:** Vulcan Systems, LLC
Emergency Telephone. No: (989)739-8050 5740 F-41, Oscoda, MI 48750

SECTION 2 – HAZARDOUS IDENTIFICATION

HAZARD CLASSIFICATION – This product is not classified as hazardous according to applicable GHS hazard classification criteria as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200).

Hazard Symbol – No symbol required **Signal Word** – No signal word required
Hazard Statement – Not applicable **Precautionary Statement** – Not Applicable

Hazards not otherwise classified:

- Avoid breathing welding fumes and gases, they may be dangerous to your health. Always use adequate ventilation. Always use appropriate personal protective equipment.
- Primary routes of entry: Respiratory System, Eyes and/or Skin.
- Arc Rays: The welding arc can injure eyes and burn skin.
- Electric Shock: Arc welding and associated processes can kill.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

This information is protected by Trade-Secret

SECTION 4 – FIRST AID PROCEDURES

If overcome by smoke or fumes, remove the victim to fresh air and call for medical aid. Employ first aid techniques recommended by the Red Cross.

SECTION 5 – FIRE-FIGHTING MEASURES

Non-flammable. Welding arc and sparks can ignite combustible and flammable products. Refer to the Canadian standard “Safety in Welding and Cutting and Allied Procedures” for fire prevention and protection information during the use of welding and allied procedure. **Extinguishing Media** – Co2 or Dry Chemical Extinguisher.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Not Applicable as product cannot leak or be spilled.

SECTION 7 – HANDLING AND STORAGE

Read and understand manufacturer’s instructions and the precautionary label on the product. See American National Standard z249.1 “Safety in Welding and Cutting” published by the American Welding Society. Maintain all exposure below the limits in section 5. Monitor the air to ensure that the levels are below the above mentioned limits. See AWS f1.1 “Methods for Sampling Airborne Particles Generated by Welding and Allied Procedures” and AWS f1.3 “Evaluating Constituents in the Welding Environment: A Sampling Strategy Guide.”

Prevent waste from contaminating the surrounding environment, discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, and local regulations.

SECTION 8 – EXPOSURE CONTROL/PERSONAL PROTECTION

This section covers the material from which this product is manufactured. The term “hazardous ingredients” should be interpreted as a term required and defined in OSHA hazard communication standard. This product contains toxic chemicals subject to the reporting requirements of section 313 of title III of SARA and CFR part 372.

INGREDIENT	CAS NO.	%WEIGHT
CALCIUM CARBONATE	1317-65-3	<2
CELLULOSE	9004-34-6	<1
FLUORSPAR	7789-75-5	1-12
IRON	7439-89-6	70-90
MAGNESIUM CARBONATE	546-93-0	<5
MANGANESE	7439-96-5	1-5
POTASSIUM SILICATE	1312-76-1	<2
SILICA	14808-60-7	<8
SILICON	7440-21-3	<2
SODIUM SILICATE	1344-09-8	<2
STRONTIUM CARBONATE	1633-05-2	<2
TITANIUM DIOXIDE	13463-67-7	<10
HEXAVALENT CHROMIUM [CHROMIUM (VI) TRIOXIDE] (Fume constituent)	1333-82-0	Varies

Exposure Limits:

INGREDIENT	CAS	OSHA PEL	ACGIH TLV
CALCIUM CARBONATE	1317-65-3	5 R*, 5 (as CaO)	3 R*, 2 (as CaO)
CELLULOSE	9004-34-6	5 R*	10 (Dust)
CHROMIUM#	7440-47-3	1 (Metal) 0.5 (Cr II & Cr III Cpnds) 0.005 (Cr VI Cpnds (Calif. OSHA PEL)	0.5 (Metal) {A4} 0.5 (Cr III Cpnds) {A4} 0.05 (Cr VI Sol Cpnds) {A1} 0.01 (Cr VI Insol Cpnds) {A1}
FLUORSPAR	7789-75-5	2.5 (as F)	2.5 (as F) {A4}
IRON+	7439-89-6	5 R*	5 R* (Fe ₂ O ₃) {A4}
IRON OXIDE	1309-37-1	10 (Oxide Fume)	5 R* (Fe ₂ O ₃) {A4}
MAGNESIUM CARBONATE	546-93-0	5 R*	3 R*
MANGANESE#	7439-96-5	5 CL ** (Fume) 1, 3 STEL*** ■	0.1 I* {A4} ◆ 0.02 R* ◆◆
POTASSIUM SILICATE	1312-76-1	Not established	Not established
SILICA++	14808-60-7	0.1 R*	0.025 R* {A2}
SILICON+	7440-21-3	5 R*	3 R*
SODIUM SILICATE	1344-09-8	Not established	Not established
STRONTIUM CARBONATE+	1633-05-2	5 R*	3 R*
TITANIUM DIOXIDE	13463-67-7	15 (Dust)	10 {A4}

Welding fumes cannot be classified simply. The composition and quantity of both are dependent on the metal being welded, the process, procedures, and electrodes used. Other conditions which also influence the composition and quality of the fumes and gases to which workers may be exposed include coating on the metal being welded (such as paint, plating, or galvanizing), the number of welders, the volume of the work area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, and presence of contaminants in the atmosphere (ie, chlorinated hydrocarbon vapors from cleaning & degreasing activities). When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients in the electrode. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials in the electrode, plus those from the base metal and coating, etc.

The international agency for research on cancer (IARC) has indicated that nickel and certain nickel compounds are probably carcinogenic for humans, but that the specified compounds which may be carcinogenic cannot be specified precisely. Chromium has also been listed by IARC because of "sufficient evidence for the carcinogenicity of chromium and certain chromium compounds." The studies forming the basis for the conclusion were from operations different from the production or welding of nickel and chromium alloys. Recent studies of workers melting and working alloys containing nickel/chromium have found increased risk of cancer.

Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases below TLVs (threshold limit values) in the workers' breathing zone and the general area. Train the welder to keep his head out of the fumes. Use respirable fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below the TLV.

Wear helmet or use a face shield with filter lens. Wear hand, head, and body protection, which help to prevent injury from radiation, sparks, and electrical shock. Train the welder not to touch live electrical parts and insulate himself from work and ground.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid	Upper/lower flammability or exposure limits	N/A
Odor	N/A	Vapor Pressure	N/A
Odor threshold	N/A	Vapor density	N/A
pH	N/A	Relative Density	N/A
Melting point/freezing point	N/A	Solubility	N/A
Initial boiling point and boiling range	N/A	Flash point	N/A
Evaporation rate	N/A	Flammability	N/A
Partition coefficient	N/A	Auto-ignition temperature	N/A
Decomposition temperature	N/A	Viscosity	N/A

SECTION 10 – STABILITY AND REACTIVITY

Not Applicable

SECTION 11 – TOXICOLOGICAL INFORMATION

Not Applicable

SECTION 12 – ECOLOGICAL INFORMATION

Not Applicable

SECTION 13 – DISPOSAL CONSIDERATIONS

Not Applicable

SECTION 14 – TRANSPORTATION INFORMATION

Not Applicable

SECTION 15 – REGULATORY INFORMATION

Not Applicable

SECTION 16 – OTHER INFORMATION

Vulcan Systems, LLC, believes this data to be accurate, but no warranty, expressed or implied, is made.