



SAFETY DATA SHEET

IR B-Side

SECTION 1) PRODUCT NAME AND COMPANY INFORMATION

PRODUCT CODE: IRBSIDE

TRADE NAME: IR B Side

SECTION 2) HAZARDS IDENTIFICATION

Classification: **Signal Word:** Warning **Pictograms:** Specific Target Organ Toxicity - Repeated Exposure - Category 2 Skin Irritation - Category 3 Eye Irritation - Category 2A Carcinogenicity - Category 2 Acute toxicity, Oral -Category 4

Hazardous Statements - Health:

H373 - May cause damage to organs through prolonged or repeated exposure

H316 - Causes mild skin irritation

H319 - Causes serious eye irritation

H351 - Suspected of causing cancer

H302 - Harmful if swallowed

Precautionary Statements - General:

P101 - If medical advice is needed, have product container or label at hand

P102 - Keep out of reach of children

P103 - Read label before use

Precautionary Statements - Prevention:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P270 - Do not eat, drink or smoke when using this product

Precautionary Statements - Response:

P314 - Get Medical advice/attention if you feel unwell

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical advice/attention

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P301 + P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell

P330 - Rinse mouth

Precautionary Statements - Storage: P405 - Store locked up.

Precautionary Statements - Disposal: P501 - Dispose of contents/ container to an approved waste disposal plant



SECTION 3) COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0009003-11-6	POLYETHYLENE-POLYPROPYLENE GLYCOL	46% - 85%
0000122-20-3	1,1,1'-NITRILOTRI-2-PROPANOL	6% - 12%
0000110-63-4	1,4-BUTANEDIOL	6% - 12%
0013463-67-7	TITANIUM DIOXIDE	5% - 10%
Not Reported	DRYING AGENT	3% - 5%
0068515-48-0	PHTHALATE ESTERS	2% - 4%
0014808-60-7	QUARTZ	1.6% - 3%
0001333-86-4	CARBON BLACK	0.3% - 0.5%

IR B-Side



SAFETY DATA SHEET

IR B-Side

SECTION 4) FIRST AID MEASURES

Inhalation: Remove source of exposure or move person to fresh air and keep comfortable for breathing.

If exposed/feel unwell/concerned: Call a POISON CENTER/doctor.

Skin Contact: Rinse/wash with lukewarm, gently flowing water and mild soap for 15-20 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

Eye Contact: Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Ingestion: Rinse mouth. If you feel unwell/If concerned: Get medical advice/attention.

SECTION 5) FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, foam, carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Unsuitable Extinguishing Media: Water and foam may cause violent frothing and possibly endanger the life of the fire fighter, especially if sprayed into containers of hot, burning material.

Specific Hazards in Case of Fire: Hazardous combustion products include oxides of carbon and nitrogen, various hydrocarbons.

Fire-fighting Procedures: Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions: Care should always be exercised in dust/mist areas. Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately.

Recommended Equipment: Positive pressure, full-face piece self-contained breathing apparatus(SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).

Personal Precautions: Avoid breathing vapors. Avoid contact with skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up: Confine spillage and absorb on sand, sawdust, or other suitable absorbent material and transfer to a sealed container.

SECTION 7) HANDLING AND STORAGE

General: Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Vent containers before melting the material.

Ventilation Requirements: Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements: Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.



SAFETY DATA SHEET

IR B-Side

SECTION 8) EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection: Wear eye protection with side shields or goggles.

Skin Protection: Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.

Appropriate Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m ³)	OSHA STEL (ppm)	OSHA STEL (mg/m ³)	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA Skin Designation	NIOSH TWA (ppm)	NIOSH TWA (mg/m ³)	NIOSH STEL (ppm)	NIOSH STEL (mg/m ³)	NIOSH Carcinogen	ACGIH TWA (ppm)	ACGIH TWA (mg/m ³)	ACGIH STEL (ppm)	ACGIH STEL (mg/m ³)
Carbon Black		3.5			1				3.5a			1				
Quartz	A	15			[1,3]; [3]			0.05e				1	0.025 (R)			
Titanium Dioxide																

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Density: 9.08 lb/gal	Viscosity: N.A
Specific Gravity: 1.09	Lower Explosion Level: N.A
VOC Regulatory: 0.00 lb/gal	Upper Explosion Level: N.A.
VOC Part A & B Combined: N.A.	Vapor Pressure: N.A.
Appearance: Pigmented Liquid	Vapor Density: Heavier than air
Vapor Pressure: N.A.	Freezing Point N.A.
Odor Threshold: N.A.	Melting Point N.A
Odor Description: Mild	Low Boiling Point 200 °C
pH: N.A	High Boiling Point N.A
Water Solubility: N.A.	Auto Ignition Temp N.A
Flammability: N.A.	Decomposition Pt N.A.
Flash Point Symbol: N.A	Evaporation Rate: Slower than ether
Flash Point 150 °C	Coefficient Water/Oil: N.A.



SAFETY DATA SHEET

IR B-Side

SECTION 10) STABILITY AND REACTIVITY

Stability: Material is stable at standard temperature and pressure.

Conditions to Avoid: Avoid storage at low or high temperatures.

Hazardous Reactions/Polymerization: Contact with isocyanates and strong oxidizers may cause highly exothermic polymerization reaction, which can be violent.

Incompatible Materials: Strong mineral acids and strong alkalis will seriously degrade material. Heat may be involved.

Hazardous Decomposition Products: Combustion by-products: Oxides of carbon, various hydrocarbons.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation: Causes mild skin irritation **Serious Eye Damage/Irritation:** Causes serious eye irritation

Respiratory/Skin Sensitization: No data available **Carcinogenicity:** Suspected of causing cancer

Germ Cell Mutagenicity: No data available **Reproductive Toxicity:** No data available

Specific Target Organ Toxicity - Single Exposure: No data available **Specific Target Organ Toxicity - Repeated**

Exposure: May cause damage to organs through prolonged or repeated exposure. **Aspiration Hazard:** No data available

Acute Toxicity: No data available

0001333-86-4 CARBON BLACK : LC50 (rat): 6750 mg/m³ (4-hour exposure); cited as 27000 mg/m³ (27 mg/L) (1-hour exposure) (3) **Chronic Exposure:** 0001333-86-4 CARBON BLACK: CARCINOGENIC EFFECTS: In 1996, the IARC reevaluated Carbon Black as a Group 2B carcinogen. This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. Prolonged inhalation of Carbon black can result in lung disease. Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function.

0014808-60-7 QUARTZ: Prolonged inhalation of respirable crystalline silica dust can result in lung disease (i.e. silicosis and/or lung cancer). Symptoms include coughing, shortness of breath, wheezing and reduced pulmonary function. **Potential Health Effects – Miscellaneous:** 0001333-86-4 CARBON BLACK is an IARC, NTP or OSHA carcinogen. Has shown carcinogenic activity in laboratory animals at high doses. Significance to man is unknown. The following medical conditions may be aggravated by exposure: asthma, respiratory disease. **WARNING:** This chemical is known to the State of California to cause cancer.

0013463-67-7 TITANIUM DIOXIDE is an IARC, NTP or OSHA carcinogen. In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m³ respirable titanium dust. Analysis of the titanium dioxide concentrations in the rats' lungs showed that the lung clearance mechanism was overwhelmed and that the results at the massive 250 mg/m³ level are not relevant to the workplace. Results of a DuPont epidemiology study showed that employees who had been exposed to Titanium Dioxide were at no greater risk of developing lung cancer than were employees who had not been exposed to Titanium dioxide. No pulmonary fibrosis was found in any of the employees and no association was observed between Titanium dioxide exposure and chronic respiratory disease or x-ray abnormalities. Based on the results of this study DuPont concludes that titanium dioxide will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.

0014808-60-7 QUARTZ is an IARC, NTP or OSHA carcinogen. Repeated overexposure to crystalline silica may lead to x-ray changes and chronic lung disease. Inhalation of high dust concentrations may cause: breathing difficulties, lung injury. **WARNING:** This chemical is known to the State of California to cause cancer.

SECTION 12) ECOLOGICAL INFORMATION

Toxicity: No data available. **Mobility in Soil:** No data available. **Other Adverse Effects:** No data available.

Bioaccumulative Potential: 0001333-86-4 CARBON BLACK A relevant bioaccumulation potential of carbon black is not expected based on its insolubility in organic solvents and in water. Furthermore, since the aggregate diameter of carbon black varies between 80 nm and 810 nm, bioaccumulation of particulate carbon black is not likely owing to the large diameter of the solid aggregate particles.

Persistence and Degradability: 0001333-86-4 CARBON BLACK: Carbon Black's insolubility in water results in it not being biodegradable in any medium or by biota. It is considered persistent in the natural environment.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal: Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.



SAFETY DATA SHEET

IR B-Side

SECTION 13) DISPOSAL CONSIDERATIONS *continued*

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

U.S. DOT Information: Not regulated **IMDG Information:** Not regulated **IATA Information:** Not regulated

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0009003-11-6	POLYETHYLENE POLYPROPYLENE GLYCOL	46% - 85%	DSL,SARA312,TSCA
0000110-63-4	1,4-BUTANEDIOL	6% - 12%	DSL,SARA312,VOC,TSCA
0000122-20-3	1,1,1'-NITRILOTRI-2- PROPANOL	6% - 12%	DSL,SARA312,VOC,TSCA
0013463-67-7	TITANIUM DIOXIDE	5% - 10%	DSL,SARA312,TSCA,California Proposition 65
0068515-48-0	PHTHALATE ESTERS	2% - 4%	DSL,CERCLA,SARA312,TSCA
0068515-48-0	PHTHALATE ESTERS	26% - 48%	DSL,CERCLA,SARA312,TSCA
0014808-60-7	QUARTZ	1.6% - 3%	DSL,SARA312,TSCA,California Proposition 65
0001333-86-4	CARBON BLACK	0.3% - 0.5%	DSL,SARA312,TSCA,California Proposition 65

16. OTHER INFORMATION

Note: As per GHS, category 1 is the greatest level of hazard within each class. GLOSSARY: ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL Occupational Exposure Limits; OSHA-Occupational Safety and Health Administration, US Department of Labor; PEL Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ - Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA - Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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