



GHS SAFETY DATA SHEET

SCIGRIP® 45 Low VOC 2-Component Adhesive (4:1 Mix Ratio)

Date Revised: DEC 2014

Supersedes: JUN 2014

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SCIGRIP® 45 Low VOC 2-Component Adhesive (4:1 Mix Ratio)**PRODUCT USE:** 2-Component Cartridge, high-strength, high viscosity, reactive Structural Adhesive**SUPPLIER:** SCIGRIP Adhesives Ltd**MANUFACTURER:** IPS CorporationUnit 22, Bentall Business Park, Glover Rd
Washington, Tyne&Wear, NE37 3JD, UK
Tel +44 191 419 6444600 Ellis Road, Durham, NC 27703 - USA
P.O. Box 12729, Research Triangle Park, NC 27709 - USA
Tel. 1-919-598-2400**EMERGENCY:** Transportation: CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International) **Medical:** CHEMTEL Tel. 800-255-3924, +1 813-248-0585 (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Health		Environmental		Physical	
Acute Toxicity:	Category 4	Acute Toxicity:	Category 3	Flammable Liquid:	Category 2
Skin Irritation:	Category 2	Chronic Toxicity:	Category 4		
Skin Sensitization:	Category 1				
Eye:	Category 2				

GHS LABEL:**Signal Word:**
Danger**WHMIS CLASSIFICATION:** CLASS B, DIVISION 2
CONTROLLED PRODUCT CLASS D, DIVISION 2B

Hazard Statements		Precautionary Statements	
H225 - Highly flammable liquid and vapor	H317 - May cause an allergic skin reaction	P233 - Keep container tightly closed	P262: Do not get in eyes, on skin, or on clothing
H312 - Harmful in contact with skin	H319: Causes serious eye irritation	P260 - Do not breathe vapor	P271 - Use only outdoors or in a well-ventilated area
H315 - Causes skin irritation	H335 - May cause respiratory irritation		
H413: May cause long lasting harmful effects to aquatic life			

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	EINECS #	REACH Pre-registration Number	CONCENTRATION	
				% by Weight	
Component "A" (Base Resin)					
Methyl Methacrylate Monomer (MMA),* Stabilized	80-62-6	201-297-1	05-2116297731-37-0000	45 - 65	
Bis (2,4-dicumylphenyl) neopental diphosphite	154862-43-8	421-920-2	N/A	1 - 3%	
Component "B" (Catalyst-Initiator)					
Benzoyl Peroxide (BPO)*	94-36-0	202-327-6	05-2116297715-31-0000	<15%	

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

*Indicates this chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).

indicates that this chemical is found on Proposition 65's List of chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION 4 - FIRST AID MEASURES

Contact with eyes:	Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.
Skin contact:	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.
Inhalation:	Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
Ingestion:	Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media:	Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.	HMIS	NFPA	0-Minimal
Unsuitable Extinguishing Media:	Water spray or stream.	Health	2	1-Slight
Exposure Hazards:	Inhalation and dermal contact	Flammability	3	2-Moderate
Combustion Products:	Oxides of carbon, oxides of nitrogen, hydrocarbons, acid smoke and toxic gases and phosphorus compounds.	Reactivity	2	3-Serious
Protection for Firefighters:	Self-contained breathing apparatus or full-face positive pressure air-supply masks.			4-Severe

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions:	Keep away from heat, sparks and open flame. Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment. Prevent contact with skin or eyes (see section 8).
Environmental Precautions:	Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.
Methods for Cleaning up:	Contain spill with sand or other inert adsorbent or absorbent material. Use non-sparking tools. Transfer to a closable vessel (Metal or polyethylene [PE])

SECTION 7 - HANDLING AND STORAGE

Handling:	Avoid breathing of vapor, avoid contact with eyes, skin and clothing. Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods. Do not eat, drink or smoke while handling.
Storage:	Store between 50° - 80°F (10° - 27°C). Store in ventilated room or shade and away from direct sunlight. Keep container tightly closed when not in use. Keep away from ignition sources and incompatible materials. Follow all precautionary information on container label and product bulletins.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

EXPOSURE LIMITS:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Benzoyl Peroxide		5 mg/m ³	N/E	5 mg/m ³	N/E
Bis (2,4-dicumylphenyl) neopental diphosphite (as dust)		N/E	N/E	15 mg/m ³	N/E

Engineering Controls:	Use local exhaust as needed.
Monitoring:	Maintain breathing zone airborne concentrations below exposure limits.
Personal Protective Equipment (PPE):	
Eye Protection:	Avoid contact with eyes, wear splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields,
Skin Protection:	Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion. Use of solvent-resistant gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.
Respiratory Protection:	Use in a well-ventilated room. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.



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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	"A" Tan, heavy viscous liquid; "B" Clear low viscosity liquid	Odor Threshold:	"A" 0.75 ppm: MMA, "B" Slight
Odor:	"A" Acrid Odor, "B" Mild	Active Oxygen Content:	<1 %
pH:	Not Applicable	Evaporation Rate:	"A" - > 1.0, "B" - <1 (BUAC = 1)
Boiling Point:	"A" 100.5°C (212.9°F) Based on first boiling component: MMA "B" Decomposes	Flammability:	"A" Category 2, "B" Category 4
Flash Point:	"A" 11.5°C (52.7°F) T.C.C. based on MMA, "B" 84°C (184°F) for BP1	Flammability Limits:	LEL: "A" 1.6% based on MMA UEL: "A" 12.5% based on MMA
Specific Gravity:	"A" 1.064 @23°C (73°F), "B" 1.295 @23°C (73°F)	Vapour Pressure:	"A" 29 mm Hg @ 20°C (68°F): MMA
Solubility:	"A" Slight in Water (MMA), "B" Insoluble in Water	Vapour Density:	"A" >3 (Air = 1), "B" - N/E
Auto-ignition Temperature:	"A" 421°C (789.8°F): MMA, "B": Not Established		
Decomposition Temperature:	"A" Not Applicable, "B" - 110°C (230°F)		
VOC Content:	"A" ≤ 50 g/l mixed, "B" - None		

SECTION 10 - STABILITY AND REACTIVITY

Stability:	Stable, unless heated
Hazardous decomposition products:	None in normal use. Oxides of carbon, oxides of nitrogen, hydrocarbons, acrid smoke and toxic gases and phosphorus compounds.
Conditions to avoid:	Keep away from direct sunlight, heat, sparks, open flame and other ignition sources.
Incompatible Materials:	Reducing and oxidizing agents and metal contaminants

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Inhalation, Eye and Skin Contact		
Acute symptoms and effects:			
Inhalation:	Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.		
Eye Contact:	Vapors slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.		
Skin Contact:	Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.		
Ingestion:	May cause nausea, vomiting, diarrhea and mental sluggishness.		
Chronic (long-term) effects:	None known to humans		
Toxicity:			
	LD50	LC50	Target Organs
Methyl Methacrylate Monomer (MMA)	Oral: 7900 mg/kg (rat), Dermal: >35000 mg/kg (rabbit)	Inhalation: 3 hrs. 7093 PPM (rat)	STOT SE3
Benzoyl Peroxide	Oral: 6400 mg/kg (rat)	Oral: 2 mg/l 96 hours (guppy)	Not Established
Bis (2,4-dicumylphenyl) neopental diphosphate	Oral: 5000 mg/kg (rat), Dermal: >2000 mg/kg (rat)	Not Established	Not Established

<u>Reproductive Effects</u>	<u>Teratogenicity</u>	<u>Mutagenicity</u>	<u>Embryotoxicity</u>	<u>Sensitization to Product</u>	<u>Synergistic Products</u>
Not Established	Not Established	Not Established	Not Established	Not Established	Not Established

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	None known
Mobility:	In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of ≤50 g/l
Degradability:	Not Established
Bioaccumulation:	Not Established

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult local disposal expert.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name:	Adhesives
Hazard Class:	3
Secondary Risk:	None
Identification Number:	UN 1133
Packing Group:	PG II
Label Required:	Class 3 Flammable Liquid
Marine Pollutant:	NO

EXCEPTION for Ground Shipping
DOT Limited Quantity: Up to 5L per inner packaging, 30 kg gross weight per package.
Consumer Commodity: Depending on packaging, these quantities may qualify under DOT as "ORM-D".

TDG INFORMATION	
TDG CLASS:	FLAMMABLE LIQUID 3
SHIPPING NAME:	ADHESIVES
UN NUMBER/PACKING GROUP:	UN 1133, PG II

SECTION 15 - REGULATORY INFORMATION

Precautionary Label Information:	Highly Flammable, Irritant	Ingredient Listings:	USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS)
Symbols:	F, Xi		
Risk Phrases:	R-11 Highly Flammable R-36/37/38 Irritating to eyes, respiratory system and skin		R-43 May cause sensitization by skin contact. R-53 May cause long-term adverse effects in the aquatic environment.
Safety Phrases:	S-2 Keep out of reach of children S-3 Keep in a cool place S-7 Keep container tightly closed S-24/25 Avoid contact with skin and eyes.		S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection S-46 If swallowed, seek medical advice immediately and show this container or label S-61 May cause harm to the unborn child

SECTION 16 - OTHER INFORMATION

Specification Information:		
Department issuing data sheet:	IPS, Safety Health & Environmental Affairs	All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances).
E-mail address:	<EHSinfo@ipscorp.com>	
Training necessary:	Yes, training in practices and procedures contained in product literature.	
Reissue date / reason for reissue:	12/23/2014 / Updated GHS Standard Format	
Intended Use of Product:	Reactive acrylic adhesive bonding/cementing plastics and other substrates	
	Not recommended for use on Teflon, Silicone, Polypropylene, Polyethylene and other Polyolefin's or joints with an interference fit.	

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.