

R-FAST A | SAFETY DATA SHEET (SDS)

SECTION 1 - IDENTIFICATION

Product identifier	R-FAST A
Other means of identification	None
Recommended use and restrictions on use	Mass casting / Refer to technical information
Initial supplier identifier	Ryver Epoxy 1180 Ernest-Harnois Joliette J6E 0J3 450 753-7767
Emergency telephone number/restriction on use	Canada – CANUTEC 24 hour number 613-996-6666

SECTION 2 - HAZARD IDENTIFICATION

Classification of hazardous product (name of the category or subcategory of the hazard class)	Skin Sensitization (Category 1B) Skin Corrosion/irritation (Category 2) Serious eye damage/irritation (Category 2A) Acute Toxicity, Oral (Category 5) Hazardous to the aquatic environment - acute (Category 2) Hazardous to the aquatic environment - chronic (Category 2)
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Information elements

(symbols, signal words, hazard statements and precautionary statements of the category/subcategory)



- H303** May be harmful if swallowed
- H315** Causes skin irritation
- H317** May cause an allergic skin reaction
- H319** Causes serious eye irritation
- H401** Toxic to aquatic life
- H411** Toxic to aquatic life with long lasting effects

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. **P264** Wash hands/nails/face thoroughly after handling. **P272** Contaminated work clothing should not be allowed out of the workplace. **P273** Avoid release to the environment. **P280** Wear protective gloves/ protective clothing/ eye protection/ face protection. **P305 + P351 + P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. **P337 + P313** If eye irritation persists: Get medical advice/attention. **P302 + P352** IF ON SKIN: Wash with plenty of water. **P333 + P313** If skin irritation or rash occurs: Get medical advice/attention. **P312** Call a POISON CENTER or doctor/physician if you feel unwell. **P362 + P364** Take off contaminated clothing and wash before reuse. **P391** Collect spillage. **P501** Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Other Hazards Known	None
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SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name (common name/synonyms)	CAS NUMBER or other	Concentration (%)
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin	25085-99-8	60-100
Alkyl glycidyl ether	68609-97-2	1-10
Benzyl alcohol	100-51-6	1-10
Benzoic acid, 4-[[[(methylphenylamino) methylene]amino]-, ethyl ester	57834-33-0	1-10

All ingredients are listed according to OSHA (29 CFR).

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) considered trade secret(s).

SECTION 4 - FIRST AID MEASURES

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Call a doctor if you feel unwell.
Skin contact	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (15-20 minutes). Wash contaminated clothing before reuse.
Eye contact	IF IN EYES, Rinse cautiously with water for several minutes (15-20). Remove contact lenses, if present and easy to do. Continue rinsing.
Most important symptoms and effects (acute and delayed)	Causes severe skin, respiratory or digestive tract burns and eye damage.
Indication of immediate medical attention/special treatment	In all cases, call a doctor. Do not forget this document.

SECTION 5 - FIREFIGHTING MEASURES

Specific hazards of the hazardous product (hazardous combustion products)	Carbon oxides and other irritant/toxic gases and fumes.
Suitable and unsuitable extinguishing media	In case of fire: Use carbon dioxide, chemical powder agent and appropriate foam to extinguish surrounding products.
Special protective equipment and precautions for fire-fighters	During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Absorb spillage to prevent material-damage. Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).
Methods and materials for containment and cleaning up	Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling	<p>Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers for leaks before handling. Label containers appropriately. Ensure proper ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.</p>
Conditions for safe storage, including any incompatibilities	<p>Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.</p>

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters (biological limit values or exposure limit values and source of those values)	<p>CAS 25085-99-8: For Workers: Acute - systemic effects Dermal 8.330 mg/kg bw/day Inhalation 12.25 mg/m³ For Consumers: Acute - systemic effects Dermal 3.571 mg/kg bw/day Inhalation 0.75 mg/m³ For Workers: Long-term - systemic effects Dermal 8.330 mg/kg bw/day Inhalation 12.25 mg/m³ For Consumers: Long-term - systemic effects Dermal 3.571 mg/kg bw/day Inhalation 0.75 mg/m³</p> <p>CAS 68609-97-2: No exposure limits noted for the ingredient(s) CAS 100-51-6: No exposure limits noted for the ingredient(s) CAS 57834-33-0: No exposure limits noted for the ingredient(s)</p>
Appropriate engineering controls	<p>Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.</p>
Individual protection measures/personal protective equipment	<p>Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. Chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact, must be worn during all handling operations. Wear protective chemical splash goggles to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.</p>

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance / color	Transparent liquid, Clear	Vapour pressure	Not available
Odour	Characteristic	Vapour density	Not available
Odour threshold	Not available	Relative density	1.126 (g/ml)
pH	Not available	Solubility	Not available
Melting point / Freezing point	Not available	Partition coefficient of n-octanol/water	Not available
Initial boiling point/ranges	Not available	Auto-ignition temperature	Not available
Flash point	> 199.4°F (93°C)	Decomposition temperature	Not available
Evaporation rate	Not available	Viscosity	1200 - 1400 cps
Flammability (solid, gas)	Not available	VOC	0 g/L
Upper/Lower flammability or explosive limits	Not available	Other	None know

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Does not react under the recommended storage and handling conditions prescribed.
Chemical Stability	Stable under the recommended storage and handling conditions prescribed.
Possibility of hazardous reactions	This product will polymerize if mixed with an amine. Considerable heat can evolve.
Conditions to avoid (static discharge, shock or vibration)	Avoid temperatures exceeding the flash point. Avoid unintended contact with amines.
Incompatible materials	Strong oxidizers, strong alkalis, strong mineral acids, amines.
Hazardous decomposition products	None known

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)	May be harmful if swallowed. May cause skin irritation. May cause an allergic skin reaction. May cause eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	High airborne concentrations of vapors may cause irritation of the respiratory tract and mucous membranes. Symptoms may include stinging, itching, tearing, redness, swelling, and blurred vision.
Delayed and immediate effects (chronic effects from short-term and long-term exposure)	Skin Sensitization – Possible; Respiratory Sensitization – No data available; Germ Cell Mutagenicity – No data available; Carcinogenicity – No ingredient listed by IARC, ACGIH, NTP or OSHA; Reproductive Toxicity – No data available; Specific Target Organ Toxicity — Single Exposure – No data available; Specific Target Organ Toxicity — Repeated Exposure – No data available; Aspiration Hazard – No data available; Health Hazards Not Otherwise Classified – No data available.
Numerical measures of toxicity (ATE; LD ₅₀ & LC ₅₀)	CAS 25085-99-8 LD ₅₀ Oral - Rat >15000 mg/kg ; LD ₅₀ Dermal - Rabbit 23000 mg/kg CAS 68609-97-2 LD ₅₀ Oral - Rat 17100 mg/kg ; LD ₅₀ Dermal - Rabbit > 4.5 mL/kg CAS 100-51-6 LD ₅₀ Oral - Rat 1360 mg/kg CAS 57834-33-0 LD ₅₀ Oral - Rat 1000-2000 mg/kg

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial information)	Hazardous to the aquatic environment
Persistence and degradability	No data available
Bioaccumulative potential	Bioconcentration potential is moderate
Mobility in soil	Low potential for mobility in soil.
Other adverse effects	No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Information on safe handling for disposal/methods of disposal/contaminated packaging

Dispose of contents/container into safe container in accordance with local, regional or national regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations:

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin); CLASS 9; PG III

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime):

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin); CLASS 9; PG III

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air):

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin); CLASS 9; PG III

Special Precautions (transport/conveyance): May also be shipped as a LIMITED QUANTITY in accordance with TDG.

Environmental hazards (IMDG or other): Marine Pollutant

Bulk transport (usually more than 450L in capacity): Possible

SECTION 15 - REGULATORY INFORMATION

Safety/health Canadian regulations specifics	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
Environmental Canadian regulations specifics	Refer to Section 3 for ingredient(s) of the DSL
Safety/health/ environmental outside regulations specifics Bioaccumulative potential	United States OSHA information: This product is regulated according to OSHA (29 CFR). United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14. United States TCSA information: Refer to the ingredients listed in Section 3.
National Fire Protection Association (NFPA)	HEALTH: 3 FLAMMABILITY: 1 INSTABILITY: 0 SPECIAL HAZARDS: Refer to Section 2 & 3. HAZARD SCALE: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION 16 - OTHER INFORMATION

Date of the latest revision of the safety data sheet February 6, 2023 version 1.2

Corrections SDS Template modifications

References Safety Data Sheets from manufacturer/supplier

Abbreviations	ACGIH American Conference of Governmental Industrial Hygienists
	ATE Acute toxicity estimate
	CAS Chemical Abstract Service
	DSL Domestic Substance List
	IARC International Agency for Research on Cancer
	IATA International Air Transport Association
	IMDG International Maritime Dangerous Goods Code
	LC Lethal concentration
	LD Lethal Dosage
	NIOSH National Institute for Occupational Safety and Health
	NTP National Toxicology Program (U.S.A.)
	OSHA Occupational Safety and Health Administration (U.S.A.)
	PEL Permissible Exposure Limit
	STEL Short-term Exposure Limit
	TDG Transport of dangerous goods in Canada
	TLV Threshold Limit Value
	TSCA Toxic Substances Control Act
	TWA Time Weighted Average
	WHMIS Workplace Hazardous Materials Information System

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.