



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier Pure Reflections 2.1VOC Fast A
Version # 01
Issue date 07-27-2015
CAS # Mixture
Product Code PR270-QT
Product use Automotive Refinish Hardener/Activator
Manufacturer information Pure Reflections
A division of IAMG/International Autobody Marketing Group
1505 N. Hayden Road, Ste. 111
Scottsdale, Arizona 85257
United States
l.fields@iamgaz.com
Supplier Not available.

INFORMATION 1-87-REFINISH
CHEMTREC 1-800-424-9300

2. Hazards Identification

Emergency overview DANGER

Flammable liquid - may release vapors that form flammable mixtures at or above the flash point. Will be easily ignited by heat, spark or flames. Heat may cause the containers to explode. Irritating to eyes and skin.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eyes Contact with eyes may cause irritation. Avoid contact with eyes.

Skin May cause skin irritation. Avoid contact with the skin.

Inhalation May cause irritation of respiratory tract. Prolonged inhalation may be harmful.

Ingestion Irritating. May cause nausea, stomach pain and vomiting.

Chronic effects Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Potential environmental effects Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Methyl Acetate	79-20-9	15 - 40
N-butyl Acetate	123-86-4	0.5 - 1.5
1,2,4-Trimethylbenzene	95-63-6	0.1 - 1
1,3,5-Trimethylbenzene	108-67-8	0.1 - 1
Hexamethylenediisocyanate	822-06-0	0.1 - 1
Isophorone Diisocyanate	4098-71-9	0.1 - 1
Other components below reportable levels		60 - 100

4. First Aid Measures

First aid procedures

Inhalation Get medical attention, if needed.

Skin contact	Take off immediately all contaminated clothing. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS criteria. Heat may cause the containers to explode. Vapors may travel considerable distance to a source of ignition and flash back.
Extinguishing media	
Suitable extinguishing media	Powder. Foam. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. In the event of fire, cool tanks with water spray. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.
Explosion data	
Sensitivity to static discharge	Not available.
Sensitivity to mechanical impact	Not available.
Hazardous combustion products	Not available.

6. Accidental Release Measures

Personal precautions	Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Extinguish all flames in the vicinity. Should not be released into the environment. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage**Handling**

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. All equipment used when handling the product must be grounded. Avoid breathing mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. When using do not eat or drink. Do not use in areas without adequate ventilation. Wash thoroughly after handling. Avoid release to the environment.

Storage

Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the MSDS).

8. Exposure Controls / Personal Protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
1,3,5-Trimethylbenzene (CAS 108-67-8)	TWA	25 ppm
Hexamethylenediisocyanate (CAS 822-06-0)	TWA	0.005 ppm
Isophorone Diisocyanate (CAS 4098-71-9)	TWA	0.005 ppm
Methyl Acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm
N-butyl Acetate (CAS 123-86-4)	STEL	200 ppm
	TWA	150 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	123 mg/m3
		25 ppm
1,3,5-Trimethylbenzene (CAS 108-67-8)	TWA	123 mg/m3
		25 ppm
Hexamethylenediisocyanate (CAS 822-06-0)	TWA	0.03 mg/m3
		0.005 ppm
Isophorone Diisocyanate (CAS 4098-71-9)	TWA	0.05 mg/m3
		0.005 ppm
Methyl Acetate (CAS 79-20-9)	STEL	757 mg/m3
		250 ppm
	TWA	606 mg/m3
		200 ppm
N-butyl Acetate (CAS 123-86-4)	STEL	950 mg/m3
		200 ppm
	TWA	713 mg/m3
		150 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
1,3,5-Trimethylbenzene (CAS 108-67-8)	TWA	25 ppm
Hexamethylenediisocyanate (CAS 822-06-0)	Ceiling	0.01 ppm
	TWA	0.005 ppm
Isophorone Diisocyanate (CAS 4098-71-9)	Ceiling	0.01 ppm
	TWA	0.005 ppm
Methyl Acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm
N-butyl Acetate (CAS 123-86-4)	TWA	20 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
1,3,5-Trimethylbenzene (CAS 108-67-8)	TWA	25 ppm
Hexamethylenediisocyanate (CAS 822-06-0)	TWA	0.005 ppm
Isophorone Diisocyanate (CAS 4098-71-9)	TWA	0.005 ppm
Methyl Acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm
N-butyl Acetate (CAS 123-86-4)	STEL	200 ppm
	TWA	150 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
1,3,5-Trimethylbenzene (CAS 108-67-8)	TWA	25 ppm
Hexamethylenediisocyanate (CAS 822-06-0)	Ceiling	0.02 ppm
	TWA	0.005 ppm
Isophorone Diisocyanate (CAS 4098-71-9)	Ceiling	0.02 ppm
	TWA	0.005 ppm
Methyl Acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm
N-butyl Acetate (CAS 123-86-4)	STEL	200 ppm
	TWA	150 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	123 mg/m3
		25 ppm
1,3,5-Trimethylbenzene (CAS 108-67-8)	TWA	123 mg/m3
		25 ppm
Hexamethylenediisocyanate (CAS 822-06-0)	TWA	0.034 mg/m3
		0.005 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Isophorone Diisocyanate (CAS 4098-71-9)	TWA	0.045 mg/m3
Methyl Acetate (CAS 79-20-9)	STEL	0.005 ppm
		757 mg/m3
		250 ppm
N-butyl Acetate (CAS 123-86-4)	TWA	606 mg/m3
		200 ppm
		950 mg/m3
	STEL	200 ppm
		713 mg/m3
		150 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methyl Acetate (CAS 79-20-9)	PEL	610 mg/m3
N-butyl Acetate (CAS 123-86-4)	PEL	200 ppm
		710 mg/m3
		150 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment
Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Wear suitable protective clothing.

Respiratory protection

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection

Wear protective gloves.

9. Physical & Chemical Properties
Appearance
Physical state

Liquid.

Form

Liquid.

Color

Clear colorless or nearly colorless

Odor

Solvent.

Odor threshold

Not available.

pH

Not available.

Vapor pressure

249.63 hPa estimated

Vapor density

Not available.

Boiling point

134.24 °F (56.8 °C) estimated

Melting point/Freezing point

-144.4 °F (-98 °C) estimated

Solubility (water)

Not available.

Specific gravity

1.09

Relative density

Not available.

Flash point

14.0 °F (-10.0 °C) estimated

**Flammability limits in air,
upper, % by volume**

16 % estimated

Flammability limits in air, lower, % by volume	3.1 % estimated
Auto-ignition temperature	850 °F (454.44 °C) estimated
VOC	0.3 lb/gal Material 0.5 lbs/gal Regulatory 34 g/l Material 58 g/l Regulatory
Evaporation rate	Not available.
Percent volatile	39.95 %
Partition coefficient (n-octanol/water)	Not available.
Other data	
Density	9.08 lbs/gal

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of explosion.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Nitrates.
Hazardous decomposition products	Not available.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 3160 mg/kg
Inhalation		
LC50	Rat	> 2000 ppm, 48 Hours
Oral		
LD50	Rat	6 g/kg
1,3,5-Trimethylbenzene (CAS 108-67-8)		
<u>Acute</u>		
Oral		
LD50	Rat	8970 mg/kg
Hexamethylenediisocyanate (CAS 822-06-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	593 mg/kg
Inhalation		
LC50	Mouse	0.03 mg/l, 2 Hours
	Rat	40 mg/l, 1 Hours 22 mg/l, 4 Hours 0.385 mg/l, 6 Hours
Oral		
LD50	Mouse	1980 mg/kg
	Rat	960 mg/kg

Components	Species	Test Results
Isophorone Diisocyanate (CAS 4098-71-9)		
Acute		
Dermal		
LD50	Rat	1060 mg/kg
Inhalation		
LC50	Rat	0.123 mg/l, 4 Hours 0.033 mg/l
Oral		
LD50	Mouse	> 2500 mg/kg
	Rat	> 1000 mg/kg
Methyl Acetate (CAS 79-20-9)		
Acute		
Oral		
LD50	Rabbit	3.7 g/kg
N-butyl Acetate (CAS 123-86-4)		
Acute		
Inhalation		
LC50	Wistar rat	160 mg/l, 4 Hours
Oral		
LD50	Rat	14000 mg/kg
Acute effects		
Sensitization	Not available.	
Chronic effects	Not expected to be hazardous by WHMIS criteria. Prolonged inhalation may be harmful.	
Carcinogenicity	Not available.	
Skin corrosion/irritation	Not available.	
Serious eye damage/irritation	Not available.	
Mutagenicity	Not available.	
Reproductive effects	Not available.	
Teratogenicity	Not available.	
Synergistic materials	Not available.	

12. Ecological Information

Ecotoxicological data		
Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 7.19 - 8.28 mg/l, 96 hours
1,3,5-Trimethylbenzene (CAS 108-67-8)		
Aquatic		
Fish	LC50	Goldfish (Carassius auratus) 9.89 - 15.05 mg/l, 96 hours
Methyl Acetate (CAS 79-20-9)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 295 - 348 mg/l, 96 hours
N-butyl Acetate (CAS 123-86-4)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 17 - 19 mg/l, 96 hours
Ecotoxicity	Components of this product are hazardous to aquatic life.	

Environmental effects	Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity	Not available.
Persistence and degradability	Not available.
Partition coefficient	
Methyl Acetate	0.18
N-butyl Acetate	1.78

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

TDG

UN number	UN1263
UN proper shipping name	Paint, Paint Related Material
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	Not available.
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.

IATA

UN number	UN1263
UN proper shipping name	Paint, Paint Related Material
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3H
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1263
UN proper shipping name	Paint, Paint Related Material
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, <u>S</u> -E
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.



15. Regulatory Information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Controlled

WHMIS classification

B2 - Flammable Liquids
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

HMIS® ratings

Health: 2*
Flammability: 3
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 3
Instability: 0

Disclaimer

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Prepared by

Not available.