

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name MIL-PRF-23377J TY. I CL. C2 CATALYST
Synonym(s) NSN: XXXX-01-416-6557
02Y040ACAT - PRODUCT NUMBER • 200Y45 - PRODUCT CODE • DEFT MIL-PRF-23377J
(02Y040ACAT) • MIL-PRF-23377J CATALYST

1.2 Uses and uses advised against

Use(s) CATALYST • COATING • PROTECTIVE COATING • TWO COMPONENT COATING

1.3 Details of the supplier of the safety data sheet

Supplier name AEROSPACE COMPOSITES
Address Suite 203434 St Kilda Road, VIC, Australia, 3004
Telephone (03) 9866 8641
Fax (03) 9867 1886
Email aerospacecomp@bigpond.com
Website <http://www.aerospacecomposites.com.au>

1.4 Emergency telephone number(s)

Emergency 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s) Flammable Liquids: Category 3
Acute Toxicity: Oral: Category 4
Serious Eye Damage / Eye Irritation: Category 2A
Acute Toxicity: Inhalation: Category 4

2.2 Label elements

Signal word

WARNING

Pictograms



Hazard statement(s)

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Prevention statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s)

Product name	MIL-PRF-23377J TY. I CL. C2 CATALYST
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media for extinction (applies if water increases risk).
Storage statement(s)	
P403 + P235	Store in a well-ventilated place. Keep cool.
Disposal statement(s)	
P501	Dispose of contents/container in accordance with relevant regulations.

2.3 Other Hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS number	EC number	Content
BENZYL ALCOHOL	100-51-6	202-859-9	25-50%
ACETONE	67-64-1	200-662-2	20-25%
1-METHOXY-2-PROPANOL	107-98-2	203-539-1	5-10%
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	203-905-0	5-10%
N-BUTANOL	71-36-3	200-751-6	5-10%
METHYL ETHYL KETONE (MEK)	78-93-3	201-159-0	1-5%
2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL	90-72-2	202-013-9	<1%
TRIETHYLENETETRAMINE (TETA)	112-24-3	203-950-6	<1%
RESIN(S)	Not Available	Not Available	10-15%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If swallowed or inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Do not give direct mouth-to-mouth resuscitation. To protect rescuer, use air-viva, oxy-viva or one-way mask. Resuscitate in a well-ventilated area.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower are recommended.

4.2 Most important symptoms and effects, both acute and delayed

No information provided.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

Product name MIL-PRF-23377J TY. I CL. C2 CATALYST

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture

Flammable. May evolve carbon oxides and hydrocarbons when heated to decomposition. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, pilot lights, heaters, naked lights, mobile phones, etc when handling. Earth containers when dispensing fluids.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

●3Y

- Alcohol resistant foam is the preferred firefighting medium
- 3 Foam
- Y Self Contained Breathing apparatus and protective gloves.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, preferably flammables store, removed from direct sunlight, incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should have appropriate ventilation and fire protection systems.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Substance	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
1-METHOXY-2-PROPANOL	SWA (AUS)	100	369	150	553
2-Butoxyethanol (EGBE)	SWA (AUS)	20	96.9	50	242
Acetone	SWA (AUS)	500	1185	1000	2375
Methyl ethyl ketone (MEK)	SWA (AUS)	150	445	300	890

Product name **MIL-PRF-23377J TY. I CL. C2 CATALYST**

Substance	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
n-Butanol	SWA (AUS)	50	152	--	--

Biological limits

Ingredient	Reference	Determinant	Sampling time	BEI
ACETONE	ACGIH BEI	Acetone in urine	End of shift	-
	ACGIH BEI	Aniline released from haemoglobin in blood	End of shift	-
	ACGIH BEI	p-Aminophenol in urine	End of shift	50 mg/L
ETHYLENE GLYCOL MONOBUTYL ETHER	ACGIH BEI	Butoxyacetic acid (BAA) in urine (with hydrolysis)	End of shift	200 mg/g creatinine
METHYL ETHYL KETONE (MEK)	ACGIH BEI	MEK in urine	End of shift	2 mg/L

8.2 Exposure controls

Engineering Controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PPE

Eye/Face

Wear splash-proof goggles.

Hand

Wear PVA or viton (R) gloves.

Body

Wear coveralls.

Respiratory

Where an inhalation risk exists, wear a Type A (Organic vapour) respirator. If spraying, wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator or an Air-line respirator. If sanding dry product, wear a Class P1 (Particulate) respirator. Where the boiling point is < 65°C, use an AX filter type.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	LIQUID
Odour	SOLVENT ODOUR
Odour Threshold	NOT AVAILABLE
pH	NOT AVAILABLE
Melting Point	NOT AVAILABLE
Boiling Point	56°C to 205°C
Flash Point	46°C
Evaporation Rate	NOT AVAILABLE
Flammability	FLAMMABLE
Upper Explosion Limit	12.8 %
Lower Explosion Limit	0 %
Vapour Pressure	NOT AVAILABLE
Vapour Density	NOT AVAILABLE
Solubility (water)	INSOLUBLE
Partition Coefficient	NOT AVAILABLE
Autoignition Temperature	NOT AVAILABLE
Decomposition Temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive Properties	NOT AVAILABLE
Oxidising Properties	NOT AVAILABLE
Specific Gravity	NOT AVAILABLE

9.2 Other information

Product name MIL-PRF-23377J TY. I CL. C2 CATALYST

% Volatiles NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), heat and ignition sources. Also incompatible with aluminium, iron, amines and mercaptans.

10.6 Hazardous decomposition products

May evolve carbon oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary Harmful - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Chronic exposure to some solvents may result in liver, kidney and central nervous system (CNS) damage.

Eye Irritant. Contact may result in irritation, lacrimation, pain and redness. May result in burns with prolonged contact.

Inhalation Harmful - irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea and headache. High level exposure may result in dizziness, drowsiness, breathing difficulties and unconsciousness. Chronic exposure to some solvents may result in liver, kidney and central nervous system (CNS) damage.

Skin Irritant. Contact may result in drying and defatting of the skin, rash and dermatitis. May be absorbed through skin with harmful effects.

Ingestion Harmful. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, dizziness and drowsiness. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.

Toxicity data

BENZYL ALCOHOL (100-51-6)
LCLo (Inhalation): 1000 ppm/8 hours (rat)
LD50 (Ingestion): 1230 mg/kg (rat)
LD50 (Skin): 2000 mg/kg (rabbit)
LDLo (Skin): 10 g/kg (cat)

ACETONE (67-64-1)
LC50 (Inhalation): 44000 mg/m³/4 hours (mouse)
LCLo (Inhalation): 1600 ppm/4 hours (rat)
LD50 (Ingestion): 3000 mg/kg (mouse)
LD50 (Intraperitoneal): 1297 mg/kg (mouse)
LD50 (Intravenous): 5500 mg/kg (rat)
LD50 (Skin): > 9400 uL/kg (guinea pig)
LDLo (Ingestion): 8000 mg/kg (dog)
LDLo (Intraperitoneal): 500 mg/kg (rat)
LDLo (Intravenous): 1576 mg/kg (rabbit)
LDLo (Skin): 20 mL/kg (rabbit)
LDLo (Subcutaneous): 5000 mg/kg (guinea pig/dog)
TCLo (Inhalation): 500 ppm (human)
TDLo (Ingestion): 2857 mg/kg (man)

1-METHOXY-2-PROPANOL (107-98-2)
LC50 (Inhalation): 10000 ppm/5 hours (rat)
LCLo (Inhalation): 15000 ppm/7 hours (rabbit)
LD50 (Ingestion): 5000 mg/kg (dog)
LD50 (Skin): 13000 mg/kg (rabbit)

Product name MIL-PRF-23377J TY. I CL. C2 CATALYST

LDLo (Ingestion): 3739 mg/kg (rat)
 TClO (Inhalation): 3000 ppm (human)
 ETHYLENE GLYCOL MONOBUTYL ETHER (111-76-2)
 LC50 (Inhalation): 700 ppm (mouse)
 LD50 (Ingestion): 300 mg/kg (rabbit)
 LD50 (Skin): 230 mg/kg (guinea pig)
 TClO (Inhalation): 100 ppm (human)
 TDLo (Ingestion): 7813 uL/kg (woman)
 N-BUTANOL (71-36-3)
 LC50 (Inhalation): 8000 ppm/4 hours (rat)
 LD50 (Ingestion): 790 mg/kg (rat)
 LD50 (Skin): 3200 mg/kg (mouse)
 LDLo (Ingestion): 1760 mg/kg (dog)
 LDLo (Skin): 2000 mg/kg (dog)
 TClO (Inhalation): 25 ppm (human)
 METHYL ETHYL KETONE (MEK) (78-93-3)
 LC50 (Inhalation): 23500 mg/kg (rat)
 LD50 (Ingestion): 2737 mg/kg (rat)
 LD50 (Intraperitoneal): 607 mg/kg (rat)
 LD50 (Skin): 6480 mg/kg (rabbit)
 TClO (Inhalation): 100 ppm/5 minutes (Human - eye irritant)
 2,4,6-TRI(DIMETHYLAMINOMETHYL)PHENOL (90-72-2)
 LD50 (Ingestion): 1200 mg/kg (rat)
 LD50 (Skin): 1280 mg/kg (rat)
 TRIETHYLENETETRAMINE (TETA) (112-24-3)
 LD50 (Ingestion): 1600 mg/kg (mouse)
 LD50 (Intraperitoneal): 468 mg/kg (mouse)
 LD50 (Intravenous): 350 mg/kg (mouse)
 LD50 (Skin): 805 mg/kg (rabbit)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information provided.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Results of PBT and vPvB assessment

No information provided.

12.6 Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal

Wearing the protective equipment outlined, ensure all ignition sources are extinguished. For small quantities, absorb on paper, sand or similar and evaporate under a fume cupboard or open area. For large volumes, atomise into incinerator (mixing with more flammable solvent if required) or recycle by gravimetric separation, distilling & reusing. Contact the manufacturer/supplier for additional information (if required).

Legislation

Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

Product name MIL-PRF-23377J TY. I CL. C2 CATALYST



	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
14.1 UN number	1263	1263	1263
14.2 UN proper shipping name	PAINT or PAINT RELATED MATERIAL		
14.3 Transport hazard classes			
DG Class	3	3	3
Subsidiary risk(s)	None Allocated	-	-
14.4 Packing group	III	III	III
14.5 Environmental hazards		None Allocated	
14.6 Special precautions for user			
Hazchem Code	●3Y		
EMS		F-E, S-E	

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule	Classified as a Schedule 5 Poison using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).	
Classifications	F - Highly flammable Xi - Irritant Xn - Harmful	
Risk phrases	R10:	Flammable.
	R20/22:	Harmful by inhalation and if swallowed.
	R36:	Irritating to eyes.
Safety phrases	S16:	Keep away from sources of ignition - No smoking.
	S23:	Do not breathe gas/fumes/vapour/spray (where applicable).
	S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S36/37/39:	Wear suitable protective clothing, gloves and eye/face protection.
	S46:	If swallowed, contact a doctor or Poisons Information Centre immediately and show container or label.
Inventory listing(s)	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.	

15.2 Chemical safety assessment

No information provided.

16. OTHER INFORMATION

Additional information This product is intended for use with MIL-PRF-23377J TY. I CL. C2 YELLOW EPOXY PRIMER. Please refer to the appropriate SDS before use.

WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (e.g. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

WORK PRACTICES - SOLVENTS: Organic solvents may present both a health and flammability hazard. It is

Product name **MIL-PRF-23377J TY. I CL. C2 CATALYST**

recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

COLOUR RATING SYSTEM: RMT has assigned all ChemAlert reports a colour rating of Green, Amber or Red for the sole purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all ChemAlert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline, a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

While all due care has been taken by RMT in the preparation of the Colour Rating System, it is intended as a guide only and RMT does not provide any warranty in relation to the accuracy of the Colour Rating System. As far as is lawfully possible, RMT accepts no liability or responsibility whatsoever for the actions or omissions of any person in reliance on the Colour Rating System.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Product name MIL-PRF-23377J TY. I CL. C2 CATALYST

Report Status This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

Prepared By Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au

Last Reviewed: 28 Sep 2012

Date Printed: 11 Mar 2015

Based on SDS dated: 23 May 2012

End of Report