

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### 1.1 Product identifier

**Product name** DEFT MIL-PRF-23377K TYPE I CLASS N CURATIVE  
**Synonym(s)** 02GN084CAT - PRODUCT CODE • DEFT MIL-PRF-23377J TYPE I CLASS N CATALYST (02GN084CAT)  
(FORMERLY) • MIL-PRF-23377J, TYPE I, CLASS N (NON-CHROMATE)

### 1.2 Uses and uses advised against

**Use(s)** AEROSPACE APPLICATIONS • COATING • POLYURETHANE COATING • TWO COMPONENT PACK

### 1.3 Details of the supplier of the safety data sheet

**Supplier name** PPG INDUSTRIES AUSTRALIA PTY. LTD. (ASC - AUSTRALIA)  
**Address** 23 Ovata Drive, Tullamarine, VIC, Australia, 3043  
**Telephone** (03) 9335 1557  
**Fax** (03) 9335 3490  
**Email** contact.aust@ppg.com  
**Website** <http://www.ppg.com/coatings/aerospace/>

### 1.4 Emergency telephone number(s)

**Emergency** 1800 807 001

## 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 2  
Acute Toxicity: Oral: Category 4  
Aspiration Hazard: Category 1  
Acute Toxicity: Skin: Category 4  
Skin Corrosion/Irritation: Category 2  
Skin Sensitisation: Category 1  
Serious Eye Damage / Eye Irritation: Category 2A  
Acute Toxicity: Inhalation: Category 4  
Repeated exposure may cause skin dryness or cracking

### 2.2 Label elements

**Signal word** DANGER

**Pictograms**



### Hazard statement(s)

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
AUH066 Repeated exposure may cause skin dryness or cracking

### Prevention statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting equipment.
- 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.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response statement(s)**

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- 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.
- P321 Specific treatment is advised - see first aid instructions.
- P330 Rinse mouth.
- P331 Do NOT induce vomiting.
- P332 + P337 + P313 If skin or eye irritation occurs: Get medical advice/ attention.
- P362 Take off contaminated clothing and wash before re-use.
- P370 + P378 In case of fire: Use appropriate media for extinction.

**Storage statement(s)**

- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.

**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
EPOXY RESIN-OXIRANE, BISPHENOL HOMOPOLYMER	25085-99-8	607-537-5	>60%
2-PENTANONE	107-87-9	203-528-1	7 - 13%
METHYL AMYL KETONE	110-43-0	203-767-1	3 - 7%
[3-(2,3-EPOXYPROPOXY)PROPYL]TRIMETHOXYSILANE	2530-83-8	219-784-2	1 - 5%

**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 inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
- Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
- 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 should be available.

**4.2 Most important symptoms and effects, both acute and delayed**

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Irritating to the eyes and skin. May cause sensitisation by skin contact.

#### **4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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## **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**

Highly flammable. May evolve toxic gases (carbon/ nitrogen oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot 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**

•3YE

- Alcohol Resistant Foam is the preferred firefighting medium. Else use;
- 3 Normal Foam (protein based foam that is not alcohol resistant).
- Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.
- E Evacuation of people in and around the immediate vicinity of the incident should be considered.

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## **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.

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## **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, removed from 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 systems.

### **7.3 Specific end use(s)**

No information provided.

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**8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

Substance	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Methyl n-amyl ketone	SWA (AUS)	50	233	--	--
Methyl propyl ketone	SWA (AUS)	200	705	250	881

**Biological limits**

No biological limit values have been entered for this product.

**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. If spraying, with prolonged use, or if in confined areas, wear impervious coveralls.

**Respiratory**

Wear a Type A (Organic vapour) respirator. If sanding dry product, wear a Class P1 (Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator.



**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<b>Appearance</b>	AMBER COLOURED LIQUID
<b>Odour</b>	SOLVENT ODOUR
<b>Odour Threshold</b>	NOT AVAILABLE
<b>Flammability</b>	HIGHLY FLAMMABLE
<b>Flash Point</b>	8°C (cc)
<b>Boiling Point</b>	101°C to 152°C
<b>Melting Point</b>	NOT AVAILABLE
<b>Evaporation Rate</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Specific Gravity</b>	1.068
<b>Solubility (water)</b>	SLIGHTLY SOLUBLE
<b>Vapour Density</b>	> 1 (Air = 1)
<b>Vapour Pressure</b>	0.5 kPa @ 20°C
<b>Upper Explosion Limit</b>	NOT AVAILABLE
<b>Lower Explosion Limit</b>	NOT AVAILABLE
<b>Partition Coefficient</b>	NOT AVAILABLE
<b>Autoignition Temperature</b>	NOT AVAILABLE
<b>Decomposition Temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive Properties</b>	NOT AVAILABLE
<b>Oxidising Properties</b>	NOT AVAILABLE

**9.2 Other information**

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% 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

Hazardous 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), alkalis (e.g. sodium hydroxide), heat and ignition sources.

### 10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ nitrogen oxides, hydrocarbons) when heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Health hazard summary</b>	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. Skin sensitisation is common with exposure to epoxy resins. Chronic exposure to some solvents may result in anaemia and liver, kidney and central nervous system (CNS) damage.
<b>Eye</b>	Irritant. Contact may result in irritation, lacrimation, pain and redness. May result in burns with prolonged contact.
<b>Inhalation</b>	Irritant. Over exposure may result in irritation of the nose and throat, coughing, nausea and vomiting. High level exposure may result in dizziness, breathing difficulties with asthma-like symptoms, pulmonary oedema and unconsciousness. Chronic exposure may result in anaemia, liver, kidney and nerve damage.
<b>Skin</b>	Irritant. Contact may result in irritation, redness, rash and dermatitis. May be absorbed through skin with harmful effects. May cause sensitisation by skin contact.
<b>Ingestion</b>	Harmful. Ingestion may result in nausea, vomiting, abdominal pain, diarrhoea, fatigue, dizziness and unconsciousness. Aspiration or inhalation may cause chemical pneumonitis and pulmonary oedema.
<b>Toxicity data</b>	EPOXY RESIN-OXIRANE, BISPHENOL HOMOPOLYMER (25085-99-8) LD50 (Ingestion): 2-19 g/kg (rat) LD50 (Skin): 20,000 mg/kg 2-PENTANONE (107-87-9) LCLo (Inhalation): 2000 ppm/4 hour (rat) LD50 (Ingestion): 1600 mg/kg (rat) LD50 (Intraperitoneal): 800 mg/kg (rat) LD50 (Skin): 6500 mg/kg (rabbit) TCLo (Inhalation): 1500 ppm (human) METHYL AMYL KETONE (110-43-0) LCLo (Inhalation): 4000 ppm/4 hours (rat) LD50 (Ingestion): 730 mg/kg (mouse) LD50 (Intraperitoneal): 400 mg/kg (mouse) LD50 (Skin): 12.6 ml/kg (rabbit) [3-(2,3-EPOXYPROPOXY)PROPYL]TRIMETHOXYSILANE (2530-83-8) LCLo (Inhalation): 5300 mg/m <sup>3</sup> /4 hours (rat) LD50 (Ingestion): 22.6 mL/kg (rat)

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LD50 (Skin): 3.97 mL/kg (rabbit)  
 TCLo (Inhalation): 119 mg/m<sup>3</sup>/6 hours /4 weeks intermittently (rat)  
 TDLo (Ingestion): 30,000 mg/kg (pregnant rat)

**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** Mix components together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer/supplier for additional information (if required). Prevent contamination of drains and waterways as environmental damage may result.

**Legislation** Dispose of in accordance with relevant local legislation.

**14. TRANSPORT INFORMATION**

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



	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
<b>14.1 UN number</b>	1263	1263	1263
<b>14.2 UN proper shipping name</b>	PAINT or PAINT RELATED MATERIAL		

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**14.3 Transport hazard classes**

DG Class	3	3	3
Subsidiary risk(s)	None Allocated	-	-

**14.4 Packing group**

II	II	II
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**14.5 Environmental hazards**

None Allocated

**14.6 Special precautions for user**

Hazchem Code	•3YE	
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 - Flammable  
 Xi - Irritant  
 Xn - Harmful

**Risk phrases**

R11:	Highly flammable.
R20/21/22:	Harmful by inhalation, in contact with skin and if swallowed.
R36/38:	Irritating to eyes and skin.
R43:	May cause sensitisation by skin contact.
R65:	Harmful: May cause lung damage if swallowed.
R66:	Repeated exposure may cause skin dryness or cracking.

**Safety phrases**

S7:	Keep container tightly closed.
S9:	Keep container in a well ventilated place.
S13:	Keep away from food, drink and animal feeding stuffs.
S26:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S29:	Do not empty into drains.
S30:	Never add water to this product.
S51:	Use only in well ventilated areas.
S53:	Avoid exposure - obtain special instructions before use.
S60:	This material and its container must be disposed of as hazardous waste.
S62:	If swallowed, do not induce vomiting; seek medical advice immediately and show this 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 used in conjunction with Deft MIL-PRF-23377K Type I Class N Base. Please refer to the appropriate SDS before use.

EPOXY RESINS: Epoxy resins may contain low concentrations of glycidal ethers and/or epichlorohydrin, which are potential sensitising agents, both skin and respiratory. Epichlorohydrin is classified as probably carcinogenic to humans (IARC Group 2A).

WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or

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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 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.

**EPOXY - PHENOXY RESINS AND POLYURETHANES:** Where spray painting with two or more component epoxy resins or polyurethane paints is undertaken, an employee shall wear a full face air-line respirator, full length chemically resistant coveralls and gloves. Further, if an individual is to enter an enclosed booth where a vapour or gas curing process is occurring, an air-line respirator is required. Once cured, these resins are considered non toxic.

**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.

<b>Abbreviations</b>	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 <sup>3</sup>	Milligrams per Cubic Metre
	OEL	Occupational Exposure Limit
	pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
	ppm	Parts Per Million
	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

**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



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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.

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**End of Report**