Hi-Tec Oil Traders Pty Ltd ABN 28 053 837 362
5 Tarlington Place Smithfield NSW 2164
Correspondence: P.O Box 322 Castle Hill NSW 1765
Ph: 1300 796 009 | **Fax:** (02) 9604 1611 | **Email:** hitecoils@hi-tecoils.com.au
www.hi-tecoils.com.a

SAFETY DATA SHEET

Product name: **PG-XL 50**

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY: ADDRESS:	Hi-Tec Oil Traders Pty Ltd. (ABN 28 053 837 362) PO Box 322 Castle Hill NSW 1765 5 Tarlington Place, Smithfield NSW 2164
TELEPHONE NUMBER:	1300 796 009
FAX NUMBER:	(02) 9604 1611
EMERGENCY TELEPHONE NUMBER:	1300 796 009
PRODUCT NAME:	PG-XL 50
OTHER NAMES:	None
MANUFACTURER'S PRODUCT CODE:	HI8- 3370
USE:	Propylene Glycol based engine cooling system treatment
ADDITIONAL INFORMATION:	Refer to Product Information Sheet for additional information.
OTHER INFORMATION:	Visit our website: www.hi-tecoils.com.au Email: hitecoils@hi-tecoils.com.au

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION:	NON-HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS Hazard classification according to criteria of NOHSC and GHS Dangerous goods classification according to Australian Dangerous Goods Code.
POISONS SCHEDULE:	S6.
GHS LABEL ELEMENTS	
SIGNAL WORD:	NOT APPLICABLE

2. HAZARDS IDENTIFICATION (CONT)

GHS CLASSIFICATIONS

CHRONIC AQUATIC HAZARD	Category 3
ACUTE AQUATIC HAZARD:	Category 3
HAZARD STATEMENT(S):	H412 Harmful to aquatic life with long lasting effects.
PRECAUTIONARY STATEMENT(S) RESPONSE:	P273 Avoid release to the environment.
PRECAUTIONARY STATEMENT(S) DISPOSAL:	P501 Dispose of contents/container in accordance with local regulations.

3. IDENTIFICATION / COMPOSITION OF INGREDIENTS

SUBSTANCES: See section below for composition of mixtures.

INGREDIENTS:

CHEMICAL ENTITY:	CAS No.	PROPORTION
Propylene Glycol	57-55-6	30-60%
Sodium Nitrite	7632-00-0	<3%
Water	7732-18-5	30-60%
Other components not considered to be harmful		To 100%

4. FIRST AID MEASURES

HEALTH EFFECTS

SWALLOWED: For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do **NOT** induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

EYE: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

4. FIRST AID MEASURES (CONT)

INHALED:	If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.
FIRST AID FACILITIES:	Normal washroom facilities are generally suitable. Ensure an eye wash station and safety shower is available and ready for use. Keep water and mild soap near work site.
ADVICE TO DOCTOR:	Treat symptomatically, for advice, contact the Poisons Information Centre 131 126.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA:	There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.
FIRE INCOMPATIBILITY:	Avoid contamination with oxidising agents as ignition may result.
FIRE-FIGHTING:	Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area.
FIRE / EXPLOSION HAZARD:	The material is not readily combustible under normal conditions. However, it will break down under fire conditions and the organic component may burn. Not considered to be a significant fire risk. Heat may cause expansion or decomposition with violent rupture of containers. Other decomposition products include: Carbon dioxide (CO2), nitrogen oxides (NOx) and other pyrolysis products typical of burning organic matter.
PROTECTIVE MEASURES:	Fire fighters should wear self-contained breathing apparatus if risk of exposure to products of combustion. Water spray may be used to cool down heat-exposed containers

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:	Refer section 8
ENVIRONMENTAL PRECAUTIONS:	Refer section 12

6. ACCIDENTAL RELEASE MEASURES (CONT)

MINOR SPILLS:	Slippery when spilt – contain spillage. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite.
MAJOR SPILLS:	Environmental hazard – contain spillage. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course.

7. HANDLING AND STORAGE

FOR SAFE HANDLING:	Limit all unnecessary personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with incompatible materials.
OTHER INFORMATION:	Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers.
SUITABLE CONTAINER:	Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
STORAGE INCOMPATIBILITY:	Avoid storage with oxidisers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Ingredient Data

Source	Ingredient	TWA	STEL	Peak	Notes
Australia Exposure Standards	Propylene glycol (particulates only)	10 mg/m^3	NA	NA	NA
Australia Exposure Standards	Propylene glycol (vapour and particulates)	474mg/m^3 / 150 ppm	NA	NA	NA

NA = Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
Propylene glycols	30 mg/m^3	330 mg/m^3	2,000 mg/m^3
Propylene glycol; (1,2-Propanediol)	30 mg/m^3	1,300 mg/m^3	7,900 mg/m^3
Sodium Nitrite	6.4 mg/m^3	71 mg/m^3	240 mg/m^3

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

Ingredient	Original IDLH	Revised IDLH
Propylene glycol	Not Available	Not Available
Sodium nitrite	Not Available	Not Available
Water	Not Available	Not Available

LEGEND
TWA = Time Weighted Average
STEL = Short Term Exposure Limit
TEEL = Temporary Emergency Exposure Limit
IDLH = Immediately Dangerous to Life and Health Concentrations

MATERIAL DATA: None assigned. Refer to individual constituents.

APPROPRIATE ENGINEERING CONTROLS: Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

EYE AND FACE PROTECTION: Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.

HANDS/FEET/SKIN PROTECTION: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber.

BODY PROTECTION: See other protection below.

OTHER PROTECTION: Overalls. P.V.C. apron. Barrier cream.

HYGIENE MEASURES: Always wash hands before eating, drinking, smoking or using the toilet. If contamination occurs, change clothing. Launder contaminated clothing before reuse. Discard internally contaminated gloves.

THERMAL HAZARDS: Not available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

GLOVE SELECTION INDEX
Glove selection is based on a modified presentation of the: *"***Forsberg Clothing Performance Index".**
The effect(s) of the following substance(s) are taken into account in the ***computer- generated*** selection:

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Material	CPI
BUTYL	C
NATURAL RUBBER	C
NEOPRENE	C
PE/EVAL/PE	C
PVA	C
VITON	C

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. - * Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	A-AUS / Class 1 P2	-	A-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	A-2 P2	A-PAPR-2 P2
up to 50 x ES	-	A-3 P2	-
50+ x ES	-	Air-line**	-

^ - Full-face
A (All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide (HCN), B3 = Acid gas or hydrogen cyanide (HCN), E = Sulfur dioxide (SO2), G = Agricultural chemicals, K = Ammonia (NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds (below 65 degC)

Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
Use approved positive flow mask if significant quantities of dust becomes airborne. Try to avoid creating dust conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Blue alkaline liquid, mixes with water
PHYSICAL STATE:	Liquid
ODOUR:	Not available
ODOUR THRESHOLD:	Not available
pH (AS SUPPLIED):	10.2 – 10.8
MELTING POINT (°C):	Not available
INITIAL BOILING POINT (°C):	Not available
FLASH POINT:	Not applicable
EVAPORATION RATE:	Not available
FLAMMABILITY:	Not available
UPPER EXPLOSIVE LIMIT (%):	Not applicable
LOWER EXPLOSIVE LIMIT (%):	Not applicable
VAPOUR PRESSURE (kPa):	Not available
SOLUBILITY IN WATER:	Miscible
VAPOUR DENSITY (AIR = 1):	Not available
RELATIVE DENSITY (WATER):	1.04 – 1.05
PARTION COEFFICIENT N-OCTANOL / WATER:	Not available
AUTO-IGNITION TEMPERATURE (°C):	Not applicable
DECOMPOSITION TEMPERATURE (°C):	Not available
VISCOSITY (cSt):	Not available
MOLECULAR WEIGHT (g/mol):	Not applicable
TASTE:	Not available
EXPLOSIVE PROPERTIES:	Not available

9. PHYSICAL AND CHEMICAL PROPERTIES (CONT)

OXIDISING PROPERTIES:	Not available
SURFACE TENSION (dyne/cm or mN/m):	Not available
VOLATILE COMPONENT (%vol):	Not available
GAS GROUP:	Not available
pH AS A SOLUTION (1%):	Not available
VOC g/L:	Not available
OTHER INFORMATION:	These physical data and other properties do not constitute a specification.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
POSSIBILITY OF HAZARDOUS REACTIONS:	Refer section 7
CONDITIONS TO AVOID:	Refer section 7
INCOMPATIBLE MATERIALS:	Refer section 7
HAZARDOUS DECOMPOSITION PRODUCTS:	Refer section 5

11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

INHALED:	The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of vapours, fumes or aerosols, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. Inhalation hazard is increased at higher temperatures.

11. TOXICOLOGICAL INFORMATION (CONT)

INGESTION:	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion of propylene glycol produced reversible central nervous system depression in humans following ingestion of 60 ml. Symptoms included increased heart-rate (tachycardia), excessive sweating (diaphoresis) and grand mal seizures in a 15 month child who ingested large doses (7.5 ml/day for 8 days) as an ingredient of vitamin preparation. Excessive repeated ingestions may cause hypoglycaemia (low levels of glucose in the blood stream) among susceptible individuals; this may result in muscular weakness, incoordination and mental confusion. Very high doses given during feeding studies to rats and dogs produce central nervous system depression (although one-third of that produced by ethanol), haemolysis and insignificant kidney changes.
SKIN CONTACT:	Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
EYE:	Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
CHRONIC:	There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.

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TOXICITY	**IRRITATION**
Not Available	Not Available

11. TOXICOLOGICAL INFORMATION (CONT)

PROPYLENE GLYCOL

TOXICITY		**IRRITATION**	
DERMAL (RABBIT) LD50:	11.890 mg/kg[2]	EYE (RABBIT):	100 mg - mild
ORAL (RAT) LD50:	20,000 mg/kg[2]	EYE (RABBIT):	500 mg/24h - mild
		SKIN (HUMAN):	104 mg/3d - intermit mod
		SKIN (HUMAN):	500 mg/7 days - mild

SODIUM NITRITE

TOXICITY		**IRRITATION**	
INHALATION (RAT) LC50:	0.0055 mg/L/4H[2]	EYE (RABBIT):	500 mg/24h - mild
ORAL (RAT) LD50:	157.9 mg/kg[2]		

WATER

TOXICITY	**IRRITATION**
Not available	Not available

***Legend**: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

SODIUM NITRITE:	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Tumorigenic - Carcinogenic by RTECS
WATER:	No significant acute toxicological data identified in literature search.
ACUTE TOXICITY:	Data not available to make classification.
SKIN IRRITATION/CORROSION:	Data not available to make classification.
SERIOUS EYE DAMAGE/IRRITATION:	Data not available to make classification.
RESPIRATORY OR SKIN SENSITISATION:	Data not available to make classification.
MUTAGENICITY:	Data not available to make classification.
CARCINOGENICITY:	Data not available to make classification.
REPRODUCTIVITY:	Data not available to make classification.
STOT – SINGLE EXPOSURE:	Data not available to make classification.
STOT – REPEATED EXPOSURE:	Data not available to make classification.
ASPIRATION HAZARD:	Data not available to make classification.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
PG-XL 50	NA	NA	NA	NA	NA
Propylene glycol	LC50	96	Fish	710 mg/L	4
Propylene glycol	EC50	48	Crustacea	> 1,000 mg/L	4
Propylene glycol	EC50	96	Algae or other aquatic plants	19,000 mg/L	2
Propylene glycol	NOEC	168	Fish	98 mg/L	4
Sodium nitrite	LC50	96	Fish	0.048 mg/L	4
Sodium nitrite	EC50	48	Crustacea	ca 12.5100 mg/L	1
Sodium nitrite	EC50	72	Algae or other aquatic plants	>100 mg/L	2
Sodium nitrite	NOEC	2	Fish	0.02 mg/L	4
Water	NA	NA	NA	NA	NA

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*
NA = Not available

DO NOT DISCHARGE INTO SEWER OR WATERWAYS.

PERSISTENCE AND DEGRADABILITY:

Ingredient	Persistence: Water/Soil	Persistence: Air
Propylene glycol	LOW	LOW
Sodium nitrite	LOW	LOW
Water	LOW	LOW

BIOACCUMULATIVE POTENTIAL:

Ingredient	Bioaccumulation
Propylene glycol	LOW (BCF = 1)
Sodium nitrite	LOW (LogKOW = 0.0564)
Water	LOW (LogKOW = -1.38)

MOBILITY IN SOIL

Ingredient	Mobility
Propylene glycol	HIGH (KOC = 1)
Sodium nitrite	LOW (KOC = 23.74)
Water	LOW (KOC = 14.3)

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS: Recycle wherever possible or consult manufacturer for recycling options.
Consult State Land Waste Authority for disposal.
Bury or incinerate residue at an approved site.
Recycle containers if possible, or dispose of in an authorised landfill.

14. TRANSPORT INFORMATION

ROAD & RAIL TRANSPORT
ADG REQUIREMENT: Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

MARITIME TRANSPORT
IMO/IMDG REQUIREMENT: Not classified as a Dangerous Good according to the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT
ICAO/IATA REQUIREMENT: Not classified as a Dangerous Good according to the criteria of the International Maritime Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC REGULATORY LISTS

PROPYLENE GLYCOL (5-55-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Exposure Standards, Australia Hazardous Substances Information System - Consolidated Lists
and Australia Inventory of Chemical Substances (AICS)

SODIUM NITRITE (7632-00-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Hazardous Substances Information System - Consolidated Lists
and Australia Inventory of Chemical Substances (AICS)

WATER (7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Inventory of Chemical Substances (AICS)

16. OTHER INFORMATION

CONTACT PERSON/POINT: General Manager 1300 796 009

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

LITERATURE REFERENCES:

* NOHSC: 2011 National Code of Practice for the preparation of Safety Data Sheets.
* Safe Work Australia: 2016 Preparation of Safety Data Sheets for Hazardous Chemicals
* NOHSC: 1008 Approved Criteria for Classifying Hazardous Substances.
* NOHSC: 10005 List of Designated Hazardous Substances.
* NOHSC: 1005 Control of Workplace Hazardous Substances, National Code of Practice.
* NOHSC: 2007 Control of Workplace Hazardous Substances, National Code of Practice.
* NOHSC: 1003 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, National Exposure Standards.
* NOHSC: 3008 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Guidance Note.
* NOHSC: 1015 Storage and Handling of Workplace Dangerous Goods, National Standard.
* NOHSC: 2017 Storage and Handling of Workplace Dangerous Goods, National Code of Practice.
* SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons
* ADG: Australian Dangerous Goods Code
* SDS of component materials.

LAST CHANGE: Supercedes document issued: 1 February 2017
Reason/s for revision: Minor editorial changes to comply with GHS requirements.

MR216080/1

END OF SDS