SAFETY DATA SHEET

ROCOL COPPER ANTI-SEIZE SPRAY

Infosafe No.: C6177 ISSUED Date: 10/03/2023 ISSUED by: ITW POLYMERS & FLUIDS

Section 1 - Identification

Product Identifier

ROCOL COPPER ANTI-SEIZE SPRAY

Company Name

ITW POLYMERS & FLUIDS

Address

100 Hassall Street Wetherill Park NSW 2164 AUSTRALIA

Telephone/Fax Number

Tel: +61 2 9757 8800

Emergency Phone Number

+61 1800 951 288; +61 3 9573 3188

Recommended use of the chemical and restrictions on use

Relevant identified uses:

Aerosol spray applied dry film lubricant for prevention of seizure. Application is by spray atomisation from a hand held aerosol pack Use according to manufacturer's directions.

Other Names

Name

ANTI-SEIZE LUBRICANT ANTI-SCUFFING LUBRICANT

Additional Information

Website: www.itwpf.com.au

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Aerosols: Category 1

Acute toxicity: Category 3 - Oral Aspiration hazard: Category 1 Skin corrosion/irritation: Category 2 Sensitisation - skin: Category 1 Eye damage/irritation: Category 2A

Specific target organ toxicity (single exposure): Category 3 (Narcotic)

Germ cell mutagenicity: Category 1A Reproductive toxicity: Category 2

Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2

Signal Word (s)

DANGER

Hazard Statement (s)

AUH044 Risk of explosion if heated under confinement.

H222 Extremely flammable aerosol.

H229 Pressurized container: may burst if heated.

H301 Toxic if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H340 May cause genetic defects.

H361f Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

Pictogram (s)

Flame, Skull and crossbones, Health hazard, Environment









Precautionary Statement - Prevention

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

Precautionary Statement - Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.

P331 Do NOT induce vomiting.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P330 Rinse mouth.

Precautionary Statement - Storage

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statement - Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Precautionary Statement - General

Not Applicable

Other Information

Classification of the substance or mixture:

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Classification [1]: Aerosols Category 1, Acute Toxicity (Oral) Category 3, Aspiration Hazard Category 1, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Germ Cell Mutagenicity Category 1A, Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2

Legend: 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Page 2 / 15

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Naphtha petroleum, light, hydrotreated.	64742-49-0.	30-40 %weight
Graphite	7782-42-5	}<10 %weight^
Copper	7440-50-8	}<10 %[weight]
Hydrocarbon propellant	68476-85-7.	30-40 %weight
mineral oil	63748-98-1	}30-40 %[weight]
(solvent refined)		}
NOTE: Manufacturer has supplied full ingredient		-
Information to allow assessment.		-

Other Information

Chemical Name: Not Applicable

Synonyms: anti-seize lubricant anti-scuffing lubricant

Substances:

See section below for composition of Mixtures

Section 4 - First Aid Measures

Inhalation

If aerosols, fumes or combustion products are inhaled:

Remove to fresh air.

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. If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

Transport to hospital, or doctor.

Ingestion

Avoid giving milk or oils.

Avoid giving alcohol.

Not considered a normal route of entry.

If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

Skin

If solids or aerosol mists are deposited upon the skin:

Flush skin and hair with running water (and soap if available).

Remove any adhering solids with industrial skin cleansing cream.

DO NOT use solvents.

Seek medical attention in the event of irritation.

Eve

If aerosols come in contact with the eyes:

Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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.

Transport to hospital or doctor without delay.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be

aggravated by exposure to this product.

In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.

High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

NOTE: Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.

Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.

Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.

A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.

Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Section 5 - Firefighting Measures

Specific Methods

Alert Fire Brigade and tell them location and nature of hazard.

May be violently or explosively reactive.

Wear breathing apparatus plus protective gloves.

Prevent, by any means available, spillage from entering drains or water course.

Specific hazards arising from the chemical

Fire Incompatibility:

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Fire/Explosion Hazard:

Liquid and vapour are highly flammable.

Severe fire hazard when exposed to heat or flame.

Vapour forms an explosive mixture with air.

Severe explosion hazard, in the form of vapour, when exposed to flame or spark.

Combustion products include:

carbon monoxide (CO)

Combustible. Will burn if ignited.

carbon dioxide (CO2)

other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

May emit clouds of acrid smoke

CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.

Hazchem Code

Not Applicable

Decomposition Temperature

Not Available

Extinguishing Media - Small Fires

Water spray, dry chemical or CO2

Extinguishing Media - Large Fires

Water spray or fog.

Section 6 - Accidental Release Measures

Clean-up Methods - Small Spillages

Clean up all spills immediately.

Avoid breathing vapours and contact with skin and eyes.

Wear protective clothing, impervious gloves and safety glasses.

Shut off all possible sources of ignition and increase ventilation.

Clean-up Methods - Large Spillages

DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.

Clear area of personnel and move upwind.

Alert Fire Brigade and tell them location and nature of hazard.

May be violently or explosively reactive.

Wear breathing apparatus plus protective gloves.

Remove leaking cylinders to a safe place if possible.

Release pressure under safe, controlled conditions by opening the valve.

Other Information

Personal Protective Equipment advice is contained in Section 8 of the SDS.

Section 7 - Handling and Storage

Precautions for Safe Handling

Avoid all personal contact, including inhalation.

Wear protective clothing when risk of exposure occurs.

Use in a well-ventilated area.

Prevent concentration in hollows and sumps.

Other information:

Store below 38 °C.

Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can Store in original containers in approved flammable liquid storage area.

DO NOT store in pits, depressions, basements or areas where vapours may be trapped.

No smoking, naked lights, heat or ignition sources.

Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container:

Aerosol dispenser.

Check that containers are clearly labelled.

Storage incompatibility: Avoid reaction with oxidising agents

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA:

Source / Ingredient / Material name / TWA / STEL / Peak / Notes

Australia Exposure Standards mineral oil Oil mist, refined mineral 5 mg/m3 Not Available Not Available Not Available

Australia Exposure Standards graphite Graphite (all forms except fibres) (respirable dust) (natural & synthetic) 3 mg/m3 Not Available Not Available (e) Containing no asbestos and < 1% crystalline silica.

Australia Exposure Standards copper Copper (fume) 0.2 mg/m3 Not Available Not Available Not Available

Australia Exposure Standards copper Copper, dusts & mists (as Cu) 1 mg/m3 Not Available Not Available Not Available

Australia Exposure Standards hydrocarbon propellant LPG (liquified petroleum gas) 1000 ppm / 1800 mg/m3 Not Available Not Available Not Available

EMERGENCY LIMITS:

Ingredient / Material name / TEEL-1 / TEEL-2 / TEEL-3 naphtha petroleum, light, hydrotreated. Not Available 1,000 mg/m3 11,000 mg/m3 66,000 mg/m3 mineral oil Not Available 140 mg/m3 1,500 mg/m3 8,900 mg/m3 graphite Not Available 6 mg/m3 330 mg/m3 2,000 mg/m3 copper Not Available 3 mg/m3 33 mg/m3 200 mg/m3 hydrocarbon propellant Not Available 65,000 ppm 2.30E+05 ppm 4.00E+05 ppm

Ingredient / Original IDLH / Revised IDLH naphtha petroleum, light, hydrotreated. Not Available Not Available mineral oil 2,500 mg/m3 Not Available graphite 1,250 mg/m3 Not Available copper 100 mg/m3 Not Available hydrocarbon propellant 2,000 ppm Not Available

Engineering Controls

CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear

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.

Respiratory Protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Eye and Face Protection

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

Safety glasses with side shields.

NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

Hand Protection

No special equipment needed when handling small quantities.

OTHERWISE:

For potentially moderate exposures:

Wear general protective gloves, eg. light weight rubber gloves.

For potentially heavy exposures:

Wear chemical protective gloves, eg. PVC. and safety footwear.

Thermal Hazards

Not Available

Body Protection

No special equipment needed when handling small quantities.

OTHERWISE:

Overalls.

Skin cleansing cream.

Evewash unit.

The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.

Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.

BRETHERICK: Handbook of Reactive Chemical Hazards.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	Dark flammable liquid with hydrocarbon solvent odour; does not mix with water. Supplied as an aerosol pack. Contents under PRESSURE. Contains highly flammable hydrocarbon propellant.
Odour	Not Available	Melting/Freezing Point	Not Available
Boiling Point	Not Available	Decomposition Temperature	Not Available
Solubility in Water	Immiscible	рН	Not Applicable (as supplied) Not Applicable as a solution (1%)
Vapour Pressure	Not Available	Relative Vapour Density (Air=1)	>1
Evaporation Rate	>1 BuAc=1	Odour Threshold	Not Available
Viscosity	Not Available	Volatile Component	Not Available
Partition Coefficient: n-octanol/water (log value)	Not Available	Surface Tension	Not Available
Flash Point	-81°C propellant	Flammability	HIGHLY FLAMMABLE.
Auto-Ignition Temperature	Not Available	Explosion Limit - Upper	Not Available
Explosion Limit - Lower	Not Available	Explosion Properties	Not Available
Molecular Weight	Not Applicable	Oxidising Properties	Not Available
Initial boiling point and boiling range	Not Available	Relative Density	(Water = 1): Not Available

Other Information

Taste: Not Available Gas group: Not Available VOC g/L: Not Available

Section 10 - Stability and Reactivity

Reactivity

See section 7

Chemical Stability

 ${\bf Elevated\ temperatures.}$

Presence of open flame.

Product is considered stable.

Hazardous polymerisation will not occur.

Possibility of hazardous reactions

See section 7

Conditions to Avoid

See section 7

Incompatible Materials

See section 7

Hazardous Decomposition Products

See section 5

Section 11 - Toxicological Information

Toxicology Information

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

Rocol Copper Anti-Seize Spray:

The High Benzene Naphthas (HBNs) contain mainly benzene but its adverse health effect is more with other components, which may cause adverse health effects involving a variety of organs. They may produce genetic damage as well as effects on reproduction and the unborn baby (generally at levels toxic to the mother). They may also cause cancers.

Rocol Copper Anti-Seize Spray:

For Low Boiling Point Naphthas (LBPNs):

Acute toxicity:

LBPNs generally have low acute toxicity by the oral (median lethal dose [LD50] in rats > 2000 mg/kg-bw), inhalation (LD50 in rats > 5000 mg/m3) and dermal (LD50 in rabbits > 2000 mg/kg-bw) routes of exposure

Most LBPNs are mild to moderate eye and skin irritants in rabbits, with the exception of heavy catalytic cracked and heavy catalytic reformed naphthas, which have higher primary skin irritation indices.

Sensitisation:

LBPNs do not appear to be skin sensitizers, but a poor response in the positive control was also noted in these studies Repeat dose toxicity:

The lowest-observed-adverse-effect concentration (LOAEC) and lowest-observed-adverse-effect level (LOAEL) values identified following short-term (2-89 days) and subchronic (greater than 90 days) exposure to the LBPN substances. These values were determined for a variety of endpoints after considering the toxicity data for all LBPNs in the group. Most of the studies were carried out by the inhalation route of exposure. Renal effects, including increased kidney weight, renal lesions (renal tubule dilation, necrosis) and hyaline droplet formation, observed in male rats exposed orally or by inhalation to most LBPNs, were considered species- and sex-specific These effects were determined to be due to a mechanism of action not relevant to humans -specifically, the interaction between hydrocarbon metabolites and alpha-2-microglobulin, an enzyme not produced in substantial amounts in female rats, mice and other species, including humans.

Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cycloparaffins. The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell.

Rocol Copper Anti-Seize Spray:

The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives;

The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone,

The adverse effects of these materials are associated with undesirable components, and

The levels of the undesirable components are inversely related to the degree of processing;

Distillate base oils receiving the same degree or extent of processing will have similar toxicities;

The potential toxicity of residual base oils is independent of the degree of processing the oil receives.

The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.

Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size.

Toxicity testing has consistently shown that lubricating base oils have low acute toxicities.

Rocol Copper Anti-Seize Spray:

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a

non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Rocol Copper Anti-Seize Spray:

WARNING: Inhalation of high concentrations of copper fume may cause "metal fume fever", an acute industrial disease of short duration. Symptoms are tiredness, influenza like respiratory tract irritation with fever.

The following information refers to contact allergens as a group and may not be specific to this product.

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions.

for copper and its compounds (typically copper chloride):

Acute toxicity: There are no reliable acute oral toxicity results available. In an acute dermal toxicity study (OECD TG 402), one group of 5 male rats and 5 groups of 5 female rats received doses of 1000, 1500 and 2000 mg/kg bw via dermal application for 24 hours. The LD50 values of copper monochloride were 2,000 mg/kg bw or greater for male (no deaths observed) and 1,224 mg/kg bw for female. Four females died at both 1500 and 2000 mg/kg bw, and one at 1,000 mg/kg bw.

Rocol Copper Anti-Seize Spray: inhalation of the gas

Rocol Copper Anti-Seize Spray:

No significant acute toxicological data identified in literature search.

Rocol Copper Anti-Seize Spray:

For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation.

Cancer-causing potential: Animal testing shows inhaling petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans.

Mutation-causing potential: Most studies involving gasoline have returned negative results regarding the potential to cause mutations, including all recent studies in living human subjects (such as in petrol service station attendants).

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Acute Toxicity: Data available to make classification

Ingestion

Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)

Accidental ingestion of the material may be damaging to the health of the individual.

Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments

Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.

Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.

A metallic taste, nausea, vomiting and burning feeling in the upper stomach region occur after ingestion of copper and its derivatives. The vomitus is usually green/blue and discolours contaminated skin.

Inhalation

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Inhalation of toxic gases may cause:

Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures; Respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest; Heart: collapse, irregular

Page 9 / 15

heartbeats and cardiac arrest:

Gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.

Inhalation hazard is increased at higher temperatures.

Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.

Nerve damage can be caused by some non-ring hydrocarbons. Symptoms are temporary, and include weakness, tremors, increased saliva, some convulsions, excessive tears with discolouration and inco-ordination lasting up to 24 hours.

Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.

Symptoms of asphyxia (suffocation) may include headache, dizziness, shortness of breath, muscular weakness, drowsiness and ringing in the ears. If the asphyxia is allowed to progress, there may be nausea and vomiting, further physical weakness and unconsciousness and, finally, convulsions, coma and death.

WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.

Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.

Exposure to hydrocarbons may result in irregularity of heart beat. Symptoms of moderate poisoning may include dizziness, headache, nausea.

Skin

This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition

Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Skin exposure to isoparaffins may produce slight to moderate irritation in animals and humans. Rare sensitisation reactions in humans have occurred.

Spray mist may produce discomfort

Open cuts, abraded or irritated skin should not be exposed to this material

Exposure to copper, by skin, has come from its use in pigments, ointments, ornaments, jewellery, dental amalgams and IUDs (intra-uterine devices), and in killing fungi and algae. Although copper is used in the treatment of water in swimming pools and reservoirs, there are no reports of toxicity from these applications.

 $Entry\ into\ the\ blood-stream,\ through,\ for\ example,\ cuts,\ abrasions\ or\ lesions,\ may\ produce\ systemic\ injury\ with\ harmful\ effects.$

Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Skin Corrosion/Irritation

Data available to make classification

Eye

Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn).

Instillation of isoparaffins into rabbit eyes produces only slight irritation.

Not considered to be a risk because of the extreme volatility of the gas.

Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged.

Aromatic species can cause irritation and excessive tear secretion.

Copper salts, in contact with the eye, may produce inflammation of the conjunctiva, or even ulceration and cloudiness of the cornea.

The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration

Serious Eye Damage/Irritation

Data available to make classification

Respiratory Sensitisation

Data available to make classification

Skin Sensitisation

Data available to make classification

Carcinogenicity

Data available but does not fill the criteria for classification

Reproductive Toxicity

Data available to make classification

STOT - Single Exposure

Data available to make classification

STOT - Repeated Exposure

Data available but does not fill the criteria for classification

Aspiration Hazard

Data available to make classification

Mutagenicity

Data available to make classification

Chronic Effects

Harmful: danger of serious damage to health by prolonged exposure through inhalation.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Main route of exposure to the gas in the workplace is by inhalation.

For copper and its compounds (typically copper chloride):

Acute toxicity: There are no reliable acute oral toxicity results available. Animal testing shows that skin in exposure to copper may lead to hardness of the skin, scar formation, exudation and reddish changes. Inflammation, irritation and injury of the skin were noted.

Repeat dose toxicity: Animal testing shows that very high levels of copper monochloride may cause anaemia.

Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]

Page 11 / 15

Section 12 - Ecological Information

Ecotoxicity

Not Available

Ingredient / Endpoint / Test Duration (hr) / Effect / Value / Species / BCF

Rocol Copper Anti-Seize Spray Not Available Not Available

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Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

For Metal:

Atmospheric Fate - Metal-containing inorganic substances generally have negligible vapour pressure and are not expected to partition to air.

Environmental Fate: Environmental processes, such as oxidation, the presence of acids or bases and microbiological processes, may transform insoluble metals to more soluble ionic forms. Environmental processes may enhance bioavailability and may also be important in changing solubilities.

Aquatic/Terrestrial Fate: When released to dry soil, most metals will exhibit limited mobility and remain in the upper layer; some will leach locally into ground water and/ or surface water ecosystems when soaked by rain or melt ice. A metal ion is considered infinitely persistent because it cannot degrade further.

For High Benzene Naphthas, (HBNs):

Environmental Fate: Some of these substances occur in crude oil and are formed as by-products from the combustion of natural materials, (e.g. during forest fires).

Atmospheric Fate: The chemical components in HBNs and are expected to evaporate significantly to the air where they are subject to rapid physical degradation through hydroxyl radical attack.

Terrestrial Fate: These substances would only be found in soils where localized spills of petroleum products have occurred and during production of products containing these substances. HBNs have the potential to exhibit a high extent of biodegradability. For copper:

Atmospheric Fate - Copper is unlikely to accumulate in the atmosphere due to a short residence time for airborne copper aerosols. Airborne coppers, however, may be transported over large distances. Air Quality Standards: no data available.

Aquatic Fate: Toxicity of copper is affected by pH and hardness of water.

For copper: Ecotoxicity - Significant effects are expected on various species of microalgae, some species of macroalgae, and a range of invertebrates, including crustaceans, gastropods and sea urchins. Copper is moderately toxic to crab and their larvae and is highly toxic to gastropods (mollusks, including oysters, mussels and clams). In fish, the acute lethal concentrations of copper depends both on test species and exposure conditions. Waters with high concentrations of copper can have significant effects on diatoms and sensitive invertebrates, notably cladocerans (water fleas).

For Copper: Typical foliar levels of copper are: Uncontaminated soils (0.3-250 mg/kg); Contaminated soils (150-450 mg/kg); Mining/smelting soils (6.1-25 mg/kg80 mg/kg300 mg/kg).

Terrestrial Fate: Plants - Generally, vegetation reflects soil copper levels in its foliage. This is dependent upon the bioavailability of copper and the physiological requirements of species concerned. Crops are often more sensitive to copper than the native flora.

For n-Heptane: Log Kow: 4.66; Koc: 2400-8100; Half-life (hr) Air: 52.8; Half-life (hr) Surface Water: 2.9-312; Henry's atm m3 /mol: 2.06; BOD 5 (if unstated): 1.92; COD: 0.06; BCF: 340-2000; Log BCF: 2.53-3.31.

Atmospheric Fate: Breakdown of n-heptane by sunlight is not expected to be an important fate process. If released to the atmosphere, n-heptane is expected to exist entirely in the vapor phase, in ambient air. Reactions hydroxyl radicals in the atmosphere have been shown to be important.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Persistence: Water/Soil / Persistence: Air

No Data available for all ingredients No Data available for all ingredients

Mobility

Mobility in soil:

No Data available for all ingredients

Page 12 / 15

Bioaccumulative Potential

No Data available for all ingredients

Section 13 - Disposal Considerations

Waste Disposal

Product / Packaging disposal:

DO NOT allow wash water from cleaning or process equipment to enter drains.

It may be necessary to collect all wash water for treatment before disposal.

In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.

Where in doubt contact the responsible authority.

Consult State Land Waste Management Authority for disposal.

Discharge contents of damaged aerosol cans at an approved site.

Allow small quantities to evaporate.

DO NOT incinerate or puncture aerosol cans.

Section 14 - Transport Information

UN Number

1950

Proper Shipping Name

AEROSOLS

Transport Hazard Class

2.1

Packing Group

Not Applicable

Hazchem Code

Not Applicable

IERG Number

49

IATA UN Number

1950

IATA Proper Shipping Name

Aerosols, flammable

IATA Transport Hazard Class

2.1

IMDG UN Number

1950

IMDG Proper Shipping Name

AEROSOLS

IMDG Transport Hazard Class

2.1

Additional Information

Land transport (Not Applicable)

UN number: 1950

Packing group: Not Applicable

UN proper shipping name: AEROSOLS Environmental hazard: No relevant data

Transport hazard class(es)

Class: 2.1

Subsidiary risk: Not Applicable Special precautions for user

Special provisions: 63 190 277 327 344 381

Limited quantity: 1000ml

Air transport (ICAO-IATA / DGR)

UN number: 1950

Packing group: Not Applicable

UN proper shipping name: Aerosols, flammable Environmental hazard: No relevant data

Transport hazard class(es) ICAO/IATA Class: 2.1

ICAO / IATA Subrisk: Not Applicable

ERG Code: 10L

Special precautions for user
Special provisions: A145 A167 A802
Cargo Only Packing Instructions: 203
Cargo Only Maximum Qty / Pack: 150 kg
Passenger and Cargo Packing Instructions: 203
Passenger and Cargo Maximum Qty / Pack: 75 kg

Passenger and Cargo Limited Quantity Packing Instructions: Y203 Passenger and Cargo Limited Maximum Qty / Pack: 30 kg G

Sea transport (IMDG-Code / GGVSee)

UN number: 1950

Packing group: Not Applicable

UN proper shipping name: AEROSOLS Environmental hazard: Marine Pollutant

Transport hazard class(es)

IMDG Class: 2.1

IMDG Subrisk: Not Applicable Special precautions for user EMS Number: F-D, S-U

Special provisions: 63 190 277 327 344 381 959

Limited Quantities: 1000 ml

Transport in bulk according to Annex II of MARPOL and the IBC code:

Source / Ingredient / Pollution Category

Not Available Rocol Copper Anti-Seize Spray Not Available

Section 15 - Regulatory Information

Regulatory Information

naphtha petroleum, light, hydrotreated.(64742-49-0.) is found on the following regulatory lists:

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

mineral oil(63748-98-1) is found on the following regulatory lists:

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

graphite(7782-42-5) is found on the following regulatory lists:

Australian Inventory of Industrial Chemicals (AIIC)

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

copper(7440-50-8) is found on the following regulatory lists:

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Page 14 / 15

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6 Australian Inventory of Industrial Chemicals (AIIC)

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

hydrocarbon propellant(68476-85-7.) is found on the following regulatory lists:

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

National Inventory / Status

Australia - AIIC -

Canada - DSL No (mineral oil)

Canada - NDSL No (naphtha petroleum, light, hydrotreated.; mineral oil; graphite; copper; hydrocarbon propellant)

China - IECSC No (mineral oil)

Europe - EINEC / ELINCS / NLP No (mineral oil)

Japan - ENCS No (naphtha petroleum, light, hydrotreated.; graphite; copper)

Korea - KECI No (mineral oil)

New Zealand - NZIoC No (mineral oil)

Philippines - PICCS No (mineral oil)

USA - TSCA No (mineral oil)

Legend: Y = All ingredients are on the inventory

Poisons Schedule

N/A

Section 16 - Any Other Relevant Information

Empirical Formula & Structural Formula

Not Applicable

User Codes

out touch		
User Title Label	User Codes	
Wis Numbers	04461904	

Other Information

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

S.GHS.AUS.EN

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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END OF SDS

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Page 15 / 15