Material Safety Data Sheet

Section 1 - Identification of Chemical Product and Company

Product name:	TAG Fuel Injector Cleaner (Aerosol)	**Product code:**	TFIC
Other names:		**Product use:** For use by professional injector service agents with an 'on car' injector cleaning machine. Combined automotive fuel/cleaner for use with Newman K28 safety valve, requiring female screwed safety adaptor incorporated in 'on car' cleaning machine.	
Substance:	Blend of solvents. Presented as an aerosol.		
Company name:	The Automotive Group Pty Ltd		
Address	1/15 Cunningham Street, Moorebank NSW 2170		
Phone	02 9732 5400	**Fax:**	02 9732 5430
MSDS creation date:	28th May 2009		
Revision date:	1ST Sep 2020	**Issue:**	A

Section 2 - Hazards Identification

Statement of Hazardous Nature: This product is classified as: Xi, Irritating. T, Toxic. F+, Highly Flammable. Hazardous according to the criteria of SWA.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

SUSMP Classification:	None allocated.	**ADG Classification:**	2
UN Number:	1950, AEROSOLS		

GHS Signal word: **DANGER.**

HAZARD STATEMENT:
H222: Highly flammable aerosol.
H280: Contains gas under pressure; may explode if heated.
AUH066: Repeated exposure may cause skin dryness or cracking.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes eye irritation.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.

H373: May cause damage to organs through prolonged or repeated exposure.

PREVENTION

P102: Keep out of reach of children.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P211: Do not spray on an open flame or other ignition source.
P243: Take precautionary measures against static discharge.
P251: Pressurized container: Do not pierce or burn, even after use.
P261: Avoid breathing fumes, mists, vapours or spray.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas thoroughly after handling.
P271: Use only outdoors or in a well ventilated area.
P280: Wear protective gloves, protective clothing and eye or face protection.
P281: Use personal protective equipment as required.

RESPONSE

P362: Take off contaminated clothing and wash before reuse.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P304+P340: IF INHALED: Remove victim 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.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.
P372: Explosion risk in case of fire.
P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog.

STORAGE

P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well-ventilated place. Keep cool.
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C.
P411+P235: Store at temperatures not exceeding 30°C. Keep cool.

DISPOSAL

P501: If product cannot be recycled, consider controlled incineration, or contact a specialist waste disposal company (see Section 13 of this SDS).

Emergency Overview

Physical Description & Colour: Clear, purple coloured liquid.

Odour: Characteristic odour.

Major Health Hazards: May cause cancer, causes serious eye irritation, respiratory system and skin, possible risk of harm to the unborn child, if aspirated, may cause lung damage, vapours may cause drowsiness and dizziness.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc,%	TWA (mg/m^3)	STEL (mg/m^3)
Distillates, petroleum	68425-29-6	30-60	not set	not set
Isopropanol	67-63-0	15-30	983	1230
Butane	106-97-8	<15	1900	not set
Isopentane	78-78-4	<10	not set	not set
Toluene	108-88-3	<15	191	574

Methyl isobutyl carbinol	108-11-2	<15	104	167
Other non hazardous ingredients	various	to 100	not set	not set

Notes: This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General information: You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: If irritation occurs, contact a Poisons Information Centre, or call a doctor. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. In severe cases, symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Quickly and gently blot away excess liquid. Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact Quickly and gently blot material from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: This product is classified as flammable. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Flash point: -17°C, ASTM D93 **Upper Flammability Limit:** 7.6%

Auto ignition temperature:	No data	**Lower Flammability Limit:**	1.4%
Flammability Class:	Flammable		

Section 6 - Accidental Release Measures

Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep large quantities of Dangerous Goods, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

ASCC Exposure Limits	**TWA (mg/m^3)**	**STEL (mg/m^3)**
Isopropanol	983	1230
Butane	1900	not set
toluene	191	574
Methyl isobutyl carbinol	104	167

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types

Protective Material Types:	We suggest that protective clothing be made from the following materials: nitrile, neoprene.
Respirator:	Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Clear, purple coloured liquid.
Odour:	Characteristic odour.
Boiling Point:	30-230°C at 100kPa
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	Slowly volatile at 100°C, but completely volatile at higher temperatures
Vapour Pressure:	30-60kPa at 20°C
Vapour Density:	No data.
Specific Gravity:	0.76 (liquid concentrate)
Water Solubility:	Insoluble.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data.
Auto ignition temp:	No data.

Section 10 - Stability and Reactivity

Reactivity:	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid:	This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition.
Incompatibilities:	No particular Incompatibilities.
Fire Decomposition	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation:	Polymerisation reactions are unlikely; they are not expected to occur.

Section 11 - Toxicological Information

Local Effects: There is no data to hand indicating any particular target organs.

Target Organs:

Classification of Hazardous Ingredients

Ingredient	**Risk Phrases**
Distillates, Petroleum	Conc>=10%: T; R45; R46; R65 • Aspiration hazard – category 1 • Carcinogenicity – category 1A • Germ cell mutagenicity – category 1B • Eye irritation – category 2A • Skin irritation – category 2 • Specific target organ toxicity (repeated exposure) – category 1

Isopropanol	Conc>=20%: Xi; R36 • Flammable liquid – category 2 • Eye irritation – category 2A • Specific target organ toxicity (single exposure) – category 3
Toluene	>=10%Conc<20%: Xn; R63; R48/20; R65 • Flammable liquid – category 2 • Skin irritation – category 2 • Specific target organ toxicity (repeated exposure) – category 2 • Reproductive toxicity – category 1A • Specific target organ toxicity (single exposure) – category 3 • Aspiration hazard – category 1
Methyl isobutyl carbinol	• Flammable liquid – category 3 • Acute toxicity – category 4 • Eye irritation – category 2A • Skin irritation – category 2 • Specific target organ toxicity (single exposure) – category 3
Butane	• Flammable gas – category 1 • Gases under pressure
Isopentane	• Flammable liquid – category 1 • Aspiration hazard – category 1 • Specific target organ toxicity (single exposure) – category 3 • Hazardous to the aquatic environment (chronic) – category 2

Potential Health Effects

INHALATION:

Short Term Exposure:	Available data indicates that this product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased. Intentional misuse by deliberately concentrating and inhaling contents of aerosol containers can be harmful or fatal.
Long Term Exposure:	No data for health effects associated with long term inhalation.

SKIN CONTACT:

Short Term Exposure:	Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.
Long Term Exposure:	Repeated exposure may cause skin dryness or cracking.

EYE CONTACT:

Short Term Exposure:	If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.
Long Term Exposure:	No data for health effects associated with long term eye exposure.

INGESTION:

Short Term	Significant oral exposure is considered to be unlikely. Because of the low viscosity of this

Exposure:	product, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is very difficult to remove and can cause severe injury or death. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.
Long Term Exposure:	No data for health effects associated with long term ingestion.

CARCINOGEN STATUS:

SWA:	No significant ingredient is classified as carcinogenic by SWA.
NTP:	No significant ingredient is classified as carcinogenic by NTP.
IARC:	Isopropanol is Class 3 - unclassifiable as to carcinogenicity to humans. Toluene is Class 3 - unclassifiable as to carcinogenicity to humans. See the IARC website for further details. A web address has not been provided as addresses frequently change.

Section 12 - Ecological Information

Insufficient data to be sure of status.

Section 13 - Disposal Considerations

Disposal:	Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Section 14 - Transport Information

ADG Code:	1950, AEROSOLS	**Hazchem Code:**	2YE
Special Provisions:	63, 190, 277, 327, 344, 381	**Dangerous Goods Class:**	Class 2.1: Flammable gases.
Limited quantities:	ADG 7 specifies a Limited Quantity value of 1000mL for this class of product.		
Packaging Group:	Not set	**Packaging Method:**	P207, LP200

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

Section 15 - Regulatory Information

AICS:	All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Distillates, petroleum, toluene, are mentioned in the SUSDP

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially fire fighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)

End of Material Safety Data Sheet