



SAFETY DATA SHEET

SDS: A4149-E241US+

Date Prepared: 2018/07/19

Date Revised: 2024/08/19

Product Name: AISIN ATF-NS2 Formulated for NS2 Application

1. Identification

Product name: AISIN ATF-NS2 Formulated for NS2 Application
Manufacturer/Supplier: AISIN World Corp. of America
Address: 24330 Garnier Street, Torrance, CA. 90505
Telephone: TEL: +1-800-822-2726
Emergency Telephone
Number (US and Canada): 3E: 1-800-451-8346
ID Number: 17406
Recommended use and restrictions on use: **Contact Available: 24/7/365**
Transmission Fluid
None identified

2. Hazards identification

Classification of the chemical in accordance with OSHA Hazard Communication Standard
(29 CFR § 1910.1200)

Hazard category	Category
Flammable liquids	No Classification
Acute toxicity (oral)	No Classification
Acute toxicity (dermal)	No Classification
Acute toxicity(dust, mist)	No Classification
Skin sensitizer	Category 1
Aspiration hazard	No Classification
Acute hazards to the aquatic environment	Category 3
Chronic hazards to the aquatic environment	Category 3

Label elements

Pictograms:



Signal word: Warning

Hazard statement: May cause allergic skin reaction

Harmful to aquatic life

Harmful to aquatic life with long lasting effects

Precautionary statements:

Prevention Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.



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Do not allow the eyes to become exposed to the product. Do not swallow the product.

Avoid release to the environment.

Contaminated work clothing must not be allowed out of the workplace.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Response IF SWALLOWED: Immediately call a POISON CENTER/doctor.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Storage The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.

Containers that have been opened must be tightly sealed.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.

Emergency overview: PBT or vPvB : Not applicable

3. Composition/information on ingredients

3.1 Substances

Not Applicable



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3.2 Mixtures

Ingredients and Concentration

Chemical Name	Concentration wt. %	CAS#
Base Oil(s)	80-90	Trade Secret
Additives	<20	
1,3,4-Thiadiazole, 2,5-bis(tert-nonyldithio)-	0.1-0.9	Trade Secret
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivatives, C10-rich	0.1-0.9	Trade Secret
2-Propanol, 1-(tert-dodecylthio)-	0.1-0.9	Trade Secret
N-Phenyl-1-Naphthylamine	0.1-0.9	Trade Secret

4. First-aid measures

Inhalation:	If inhaled: Remove person to fresh air and keep comfortable for breathing. Cover the body with blankets to keep warm and quiet. If you feel unwell, seek medical advice.
Skin contact:	Immediately flush skin with large amounts of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Take off contaminated clothing and wash it before reuse. Rinse with clean water carefully for several minutes. Remove contact lenses if present and if removal is easy, then continue rinsing. Rinse for 15 minutes at a minimum and seek medical attention.
Ingestion:	Do not induce vomiting. Drink [one glass] [two glasses] of water. Call a physician [or poison control center] immediately.
Most important symptoms/effects, acute and delayed:	May cause allergic skin reaction. Dermatitis. Rash.
Protection for first aid person:	No information.

5. Fire-fighting measures

Suitable extinguishing media:	Mist of loaded liquid, dry chemicals, carbon dioxide, fire foam, and dry sand are effective.
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Unsuitable extinguishing media:	Use of straight stream of water can cause a risk of spreading fire.
Specific hazards arising from the chemical:	In some cases of fire, may release irritant gases. When burnt, may generate carbon monoxide and other toxic gases.
Specific extinguishing methods:	Spray water to the surrounding facilities for cooling. Keep unauthorized persons off the site of occurrence of fire and the surroundings. Even after extinction, cool containers thoroughly with plenty of water.
Special protective equipment and precautions for fire fighters:	Wear fire/flammable resistant/retardant clothing. Fight fire from windward direction while wearing protective equipment. If contact with skin is expected, wear impervious protective equipment and gloves. Use air-breathing apparatus and protective clothing whenever necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Wear protective equipment when working. Remove nearby potential ignition sources immediately. When mist is generated, use respiratory equipment to prevent inhalation of mist. Do not touch or walk through spillage. Pay attention to the site of spillage, which is slippery.
Environmental precautions:	Avoid release to the environment. Prevent spreading of oil spill with earth and sand, sandbags, or other proper materials and use care not to allow the oil spill to flow to street drains, sewer systems, and rivers. At sea, install oil spill containment booms to prevent spreading of spills and absorb with absorption mat or other proper materials.
Methods and materials for containment and cleaning up:	In case of spillage in small quantity, collect spillage by absorbing with earth, sand, sawdust, waste, or other proper materials. In case of spillage in large quantity, enclose with embankment to prevent spreading of spillage and collect spillage in empty containers to the extent possible.



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Prevention of second accident: In case of spillage, immediately inform the organizations concerned of the spillage to prevent possible accidents and spreading of spillage.

Remove nearby potential ignition sources immediately and make fire-extinguishing agents available. Remove spillage completely, and ventilate and clean the site and the surroundings.

7. Handling and storage

Handling

Technical measures: Contaminated work clothing must not be allowed out of the workplace.

Keep away from any possible contact with sparks, open flames, and high-temperature materials, and do not allow release of vapor without justification.

Use pumps or other proper equipment for taking out from containers. Do not siphon with your mouth using a tube. Do not drink.

When mist is generated, use respiratory equipment to prevent inhalation of mist.

In case of vapor/mist dispersion, install a closed system, local ventilation system, and/or other proper equipment for the sources of vapor/mist generation.

Avoid rough handling of containers such as falling, dropping, exposing to shock, and dragging.

Ventilation requirements: Maintain adequate ventilation when handling indoors.

Precautions for safe handling: Avoid breathing dust/fume/gas/mist/vapors/spray.

Avoid falling, dropping, exposing to shock, or dragging of containers.

Wash hands and face thoroughly after handling.

Be careful with fire.

Wear protective gloves when opening containers to eliminate a risk of hand injury.

Contact avoidance: Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.

Contact with and storage in the same location of halogens, strong acids, alkali and oxidized substances must be avoided.

Hygiene measures: After handling Wash hands thoroughly.

Storage



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Storage conditions: Store in a well ventilated, cool, dry, dark place, protecting from direct sunlight and keeping away from any potential ignition sources and high-temperature materials.

Store tightly stopped after use to prevent possible contamination with dust and moisture.

Preferably store locked up in a proper storage area.

Safety
adequate
container
materials: Use spill-proof containers that are free of damage/corrosion.

8. Exposure controls/personal protection

Appropriate engineering controls: In case of mist generation, enclose the source of mist generation, or install a ventilation system.

Install eye cleaning and body cleaning equipment near the handling site.

Control parameters

Chemical Name	U. S. - OSHA			ACGIH	
	Ceiling	STEL	TWA	TLV-STEL	TLV-TWA
Base Oil(s)	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm 5mg/m3 (Mineral Oil Mist)
1,3,4-Thiadiazole, 2,5-bis(tert-nonyldithio)-	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3
Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivatives, C10-rich	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3
2-Propanol, 1-(tert-dodecylthio)-	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3
N-Phenyl-1-Naphthylamine	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3	-ppm -mg/m3

Personal protective equipment

Respiratory
protection: Wear protective gloves/protective clothing/eye protection/face protection.

Not needed under normal conditions, but wear a gas mask (against organic gases) whenever required.

Hand protection: Wear protective gloves/protective clothing/eye protection/face protection.



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Eye/face protection:	In case of prolonged or repeated exposure, wear oil-resistant hand protection.
	Wear protective gloves/protective clothing/eye protection/face protection.
	In case of exposure to splashes, wear ordinary type goggles.
Skin protection:	Wear protective gloves/protective clothing/eye protection/face protection.
	In case of handling over a prolonged period of time or in case of exposure to oil, wear oil-resistant, long-sleeved work clothing.
Hygiene measures:	Take off contaminated clothing and wash thoroughly before reuse.
	Wash hands thoroughly after handling.

9. Physical and chemical properties

Product

Appearance:	Liquid
Form:	Liquid
Color:	Green
Odor:	Slight odor
Melting point/freezing point:	Pour Point-45(°C)
Initial boiling point and boiling range:	No data
Flammability (solid, gas):	No data
Upper/lower flammability or explosive limits:	ExplosionLimit(1-7vol%)
Flash point:	≥180(°C)Cleveland Open Cup
Auto-ignition temperature:	Estimate200-410(°C)
Decomposition temperature:	No data.
pH:	No data
Kinematic viscosity:	>20.5(mm ² /sec) (40°C)
Solubility:	water : Insoluble.
Partition coefficient: n-octanol/water:	No data.
Vapour pressure:	No data



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Density(g/cm3): 0.8539(15°C)

Vapour density: No data.

Particle characteristics: No data

Relative density: No data.

Viscosity: No data.

10. Stability and reactivity

Reactivity: Stable when stored or preserved in a dark place at room temperature.

Chemical stability: Stable when stored or preserved in a dark place at room temperature.

Possibility of hazardous reactions: Keep away from any possible contact with strong oxidizing agents.

Conditions to avoid: Contact with incompatible hazard substances
Prolonged heating, open flames, and ignition sources

Incompatible materials: Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.

Hazardous decomposition products: When burnt, may release carbon monoxide and other gases.

11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics: May cause allergic skin reaction. Dermatitis. Rash.

Delayed and immediate effects and also chronic effects from short- and long- term exposure: Short term exposure:
Potential immediate effects : No information
Potential delayed effects : No informationLong term exposure:
Potential immediate effects : No information
Potential delayed effects : No information

Product

Acute toxicity (oral): No Classification
For mixtures, hazard category was identified based on the classification criteria for mixtures.Acute toxicity (dermal): No Classification
For mixtures, hazard category was identified based on the classification criteria for mixtures.



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Acute toxicity (inhalation):	Classification not possible (Gas) Classification not possible (Vapour) No Classification (Dust/Mist) For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin corrosion/irritation:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Serious eye damage/irritation:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory sensitization:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin sensitization:	Category 1 For mixtures, hazard category was identified based on the classification criteria for mixtures.
Mutagenicity:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Carcinogenicity:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Reproductive toxicity:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Single exposure:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Multi exposure:	Classification not possible For mixtures, hazard category was identified based on the classification criteria for mixtures.



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Respiratory toxic: No Classification
 For mixtures, hazard category was identified based on the classification criteria for mixtures.

Ingredient

Base Oil(s)

Acute toxicity (oral): No Classification
 LC50: > 5000 mg/kg[rat]

Acute toxicity (dermal): No Classification
 LC50: > 5000 mg/kg[rat]

Acute toxicity (inhalation): Exempt classification (Gas)
 Exempt classification (Vapour)
 No Classification (Dust/Mist)
 LC50: > 5 mg/L[rat]

Skin corrosion/irritation: No Classification

Serious eye damage/irritation: No Classification
 Practically None

Respiratory sensitization: Classification not possible

Skin sensitization: No Classification
 None Buehler method [guinea pig]

Mutagenicity: No Classification
 Ames Test: Negative

Carcinogenicity: No Classification
 EU: Category 2 : R45 need not apply. (NOTE L is Applicable),
 IARC: 3

Reproductive toxicity: No Classification

Target organ effect/Single exposure: No Classification

Target organ effect/Multi exposure: No Classification

Respiratory toxic: No Classification

1,3,4-Thiadiazole, 2,5-bis(tert-nonyldithio)-
 Acute toxicity (oral): LD50: > 10000 mg/kg[rat]
 Acute toxicity (dermal): LD50: > 2000 mg/kg[rabbit]
 Acute toxicity (inhalation): (Vapour)
 LC50: > 2.75 mg/L[rat]

Thiophene, tetrahydro-, 1,1-dioxide, 3-(C9-11-isoalkyloxy) derivatives, C10-rich
 Acute toxicity (dermal): LD50: 4000~8000 mg/kg[rabbit]

2-Propanol, 1-(tert-dodecylthio)-
 Acute toxicity (oral): LD50: > 5000 mg/kg[rat]
 Acute toxicity (dermal): LD50: > 2000 mg/kg[rabbit]

N-Phenyl-1-Naphthylamine



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Acute toxicity (oral):	LD50: $\geq$ 200 mg/kg[rat], LD50: 1625 mg/kg[rat]
Acute toxicity (dermal):	LD50: > 5000 mg/kg[rabbit], LD50: > 8000 mg/kg[rabbit]
Acute toxicity (inhalation):	Effect on animals : No relevant information found
Skin corrosion/irritation:	Effect on animals : No relevant information found
Serious eye damage/irritation:	Effect on animals : No relevant information found
Respiratory sensitization:	Effect on person : No relevant information found
Skin sensitization:	Effect on animals : No relevant information found
Respiratory toxic:	Effect on person : No relevant information found

12. Ecological information

Product

Ecotoxicity

Acute toxicity:	Category 3
Fish acute toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Daphnia acute toxicity:	No information.
Algae acute toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Chronic toxicity:	Category 3
Fish chronic toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Daphnia chronic toxicity:	No information.
Algae chronic toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Persistence and degradability :	No information available on mixtures
Bioaccumulative potential :	No information for mixtures.
Mobility in soil:	No information for mixtures.
Dangerous for the ozone layer:	Classification not possible
Other impact :	No information for mixtures.

Ingredient

Base Oil(s)

Ecotoxicity



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Acute toxicity:	No Classification
Fish acute toxicity:	96hLC50: > 5000 mg/L[Oncorhynchus mykiss]
Daphnia acute toxicity:	48hEC50: > 1000 mg/L[Daphnia magna]
Chronic toxicity:	No Classification
Dangerous for the ozone layer:	Classification not possible

2-Propanol, 1-(tert-dodecylthio)-

Ecotoxicity

Acute toxicity:	
Fish acute toxicity:	4dayLC50: > 0.75 mg/L[Rainbow Trout]
Daphnia acute toxicity:	2dayEC50: 0.58 mg/L[Water flea (Daphnia magna)], 21dayEC50: 0.75 mg/L[Water flea (Daphnia magna)]
Algae acute toxicity:	4dayEC50: > 100 mg/L[Green algae (Scenedesmus quadricauda)]
Chronic toxicity:	
Fish chronic toxicity:	4dayNOEC: 0.56 mg/L[Rainbow Trout]
Daphnia chronic toxicity:	2dayNOEC: 0.32 mg/L[Water flea (Daphnia magna)]
Algae chronic toxicity:	4dayNOEC: 100 mg/L[Green algae (Scenedesmus quadricauda)]

N-Phenyl-1-Naphthylamine

Ecotoxicity

Acute toxicity:	
Fish acute toxicity:	96hrLC50: 0.7 mg/L[Oryzias latipes], 96hLC50: 0.44 mg/L[Oncorhynchus mykiss]
Algae acute toxicity:	72hrEC50: 0.034 mg/L[Selenastrum capricornutum]
Chronic toxicity:	
Algae chronic toxicity:	72hrNOEC: 0.0036 mg/L[Selenastrum capricornutum]

13. Disposal considerations

Disposal methods: Dispose of contents/container in accordance with local/regional/national/international regulations.

Every customer/user of the product should dispose of industrial waste on its own responsibility, otherwise it must rely on a company authorized by prefectural governor for treating industrial waste or a local public body involved in the disposal of industrial waste for proper disposal.

Before disposal of used container, remove contents completely.

14. Transport information



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IATA	UN classification:	Not regulated
	UN number:	Not regulated
	Proper shipping name:	Not regulated
	Packing group:	Not regulated
IMDG	UN classification:	Not regulated
	UN number:	Not regulated
	Proper shipping name:	Not regulated
	Packing group:	Not regulated
Domestic restriction:		No information.
Specific security precaution and condition of transportation:		Transport containers without causing any significant friction or shaking.

15. Regulatory information

US California Proposition 65

This product can expose you to chemicals including:

Aniline 33(ppm)

Superfund Amendments and Reauthorization Act of 1986 (SARA TitleIII)

This product contains 33ppm of Aniline

Australia(AICS) :	All components are listed or exempted.
Canada(DSL) :	All components are listed or exempted.
China(IECSC) :	All components are listed or exempted.
EU(REACH) :	In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
Korea(K-REACH) :	In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
New Zealand(NZIoC) :	One or more components are not listed.
Philippines(PICCS) :	All components are listed or exempted.
Taiwan(TCSI) :	All components are listed or exempted.
USA(TSCA) :	All components are listed or exempted.



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16. Other information

NFPA	Health hazard rating blue:0, Flammability hazard rating:1
HMIS	Health Ratings:0, Flammability Ratings:1
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Reference	No information.
Disclaimer:	While Aisin World Corp. of America believes the statements set forth herein are accurate as of the date hereof, Aisin World Corp. of America makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation, and verification.