

SAFETY DATA SHEET

1. Identification

Product identifier Kovar Flair NS

Other means of identification None.

Recommended use Ag Product - Adjuvant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name
Address
Nachurs Alpine Solutions
421 Leader Street
Marion, OH 43302

United States

Telephone Telephone (740) 382-5701 ext. 221

E-mail Not available.

Emergency phone number Chemtrec (800) 424-9300

2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 3Health hazardsAcute toxicity, oralCategory 4Serious eve damage/eve irritationCategory 2A

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement Flammable liquid and vapor. Harmful if swallowed. Causes serious eye irritation.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly

closed. Ground/bond container and receiving equipment. Use explosion-proof

electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Do not eat, drink or smoke

when using this product. Wear protective gloves/eye protection/face protection.

Response If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin (or hair): Take

off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use

appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep cool.

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

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
4-Nonylphenol, branched, ethoxylated		127087-87-0	70 - < 80

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Chemical name	Common name and synonyms	CAS number	%
1-Butanol		71-36-3	5 - < 10
Polydimethylsiloxane		556-67-2	0.02
Other components below	reportable levels		10 - < 20

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contactTake off immediately all contaminated clothing. Rinse skin with water/shower. Get medical

attention if irritation develops and persists.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed

Ingestion

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Indication of immediate medical attention and special

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

treatment needed

General information

Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods
General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials.

Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

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7. Handling and storage

Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not taste or swallow. Avoid contact with eyes. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US.	OSHA Tab	le Z-1 Limits	for Air	Contaminants	(29 CFR	1910.1000)

Components	Туре	Value	
1-Butanol (CAS 71-36-3)	PEL	300 mg/m3	
		100 ppm	
US. ACGIH Threshold Limit Value	S		
Components	Туре	Value	
1-Butanol (CAS 71-36-3)	TWA	20 ppm	
US. NIOSH: Pocket Guide to Chen	nical Hazards		
Components	Туре	Value	
1-Butanol (CAS 71-36-3)	Ceiling	150 mg/m3	
		50 ppm	
US. Workplace Environmental Exp	oosure Level (WEEL) Guides		
Components	Туре	Value	
Polydimethylsiloxane (CAS 556-67-2)	TWA	10 ppm	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

1-Butanol (CAS 71-36-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

1-Butanol (CAS 71-36-3) Skin designation applies.

US - Tennessee OELs: Skin designation

1-Butanol (CAS 71-36-3)

Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

1-Butanol (CAS 71-36-3) Can be absorbed through the skin.

Appropriate engineering

controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Face shield is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not

been established), an approved respirator must be worn.

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Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Clear liquid.

Physical state
Form
Liquid.
Color
Colorless
Odor
Alcohol.
Odor threshold
Not available.
pH
Not available.

Initial boiling point and boiling

Melting point/freezing point

range

Not available.
Not available.

Flash point 130.0 °F (54.4 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) 10 %

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

Density 8.51 lb/gal **Explosive properties** Not explosive.

Flammability class Combustible II estimated

Oxidizing properties Not oxidizing.

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the

decomposition temperature. Avoid temperatures exceeding the flash point. Contact with

incompatible materials.

Incompatible materials Strong oxidizing agents. Alkaline metals.

Hazardous decomposition

products

Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

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11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact No adverse effects due to skin contact are expected.

Eye contact Causes serious eye irritation.

Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred

vision.

toxicological characteristics

Information on toxicological effects

Acute toxicity Harmful if swallowed.

Product Species Test Results

Kovar Flair NS

Acute

Dermal

Liquid

LD50 Rabbit > 5000 mg/kg, 24 hours

Inhalation

Air and aerosol

LC50 Rat > 0.55 mg/l

Oral

Liquid

LD50 Rat 1750 mg/kg

Components Species Test Results

1-Butanol (CAS 71-36-3)

Acute

Dermal

LD50 Rabbit 3430 mg/kg, 24 Hours

Oral

LD50 Rat 4360 mg/kg

4-Nonylphenol, branched, ethoxylated (CAS 127087-87-0)

Acute Oral

LD50 Rat 1000 - 2000 mg/kg by analogy to product

with similar composition

Polydimethylsiloxane (CAS 556-67-2)

Acute

Dermal

LD50 Rat > 2000 mg/kg, 24 Hours

Oral

LD50 Rat > 61440 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Erythema value 0.0000

Oedema value 0.0000

Serious eye damage/eye

irritation

Causes serious eye irritation.

Corneal opacity value 1.0000 Iris lesion value 1.0000 Conjunctival reddening 2.7778

value

Conjunctival oedema value 1.4444

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Recover days 14

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Skin sensitization

Kovar Flair NS Result: Non-Sensitizing

Species: Rabbit

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test Results

4-Nonylphenol, branched, ethoxylated (CAS 127087-87-0)

Acute

EC50 Aquatic 10 - 100 mg/l LC50 Aquatic 10 - 100 mg/l

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

1-Butanol 0.88

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the

material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of

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

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

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14. Transport information

DOT

UN1120 **UN** number

Butanol Solution UN proper shipping name

Transport hazard class(es)

Class Combustible Liquid

Subsidiary risk

Label(s) Combustible Liquid

Packing group Ш

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Not regulated when

transported by road in a non-bulk package.

B1, IB3, T2, TP1 **Special provisions**

Packaging exceptions 150 Packaging non bulk 203 Packaging bulk 242

IATA

UN1120 **UN** number

UN proper shipping name **Butanol Solution**

Transport hazard class(es)

Class 3 Subsidiary risk Ш Packing group **Environmental hazards** No. **ERG Code** 3L

Other information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

aircraft

Allowed with restrictions.

Allowed with restrictions. Cargo aircraft only

IMDG

UN number UN1120

UN proper shipping name

Transport hazard class(es)

BUTANOL SOLUTION

Not established.

3 **Class** Subsidiary risk Ш Packing group

Environmental hazards

Marine pollutant No. F-E, S-D

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code



15. Regulatory information

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication **US federal regulations**

Standard, 29 CFR 1910.1200. All components are listed on or exempted from the U.S. EPA TSCA

Inventory List.

Toxic Substances Control Act (TSCA)

One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

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TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

1.0 % One-Time Export Notification only. Polydimethylsiloxane (CAS 556-67-2)

TSCA Chemical Action Plans, Chemicals of Concern

4-Nonylphenol, branched, ethoxylated Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan

(CAS 127087-87-0)

CERCLA Hazardous Substance List (40 CFR 302.4)

1-Butanol (CAS 71-36-3) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed

SARA 311/312 Hazardous

Yes

chemical

Classified hazard Flammable (gases, aerosols, liquids, or solids)

Acute toxicity (any route of exposure) categories

Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Chemical name **CAS** number % by wt. N-BUTYL ALCOHOL 71-36-3 5 - < 1070 - < 80 Poly(oxy-1,2-ethanediyl), 127087-87-0

.alpha.-(4-nonylphenyl)-.omega.-hydroxy-, branched

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Contains component(s) regulated under the Safe Drinking Water Act.

(SDWA)

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

1-Butanol (CAS 71-36-3) Low priority

US state regulations

California Proposition 65

WARNING: This product can expose you to chemicals including Oxirane, which is known to the State of

California to cause cancer and birth defects or other reproductive harm. For more information go

to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-dioxane (CAS 123-91-1) Listed: January 1, 1988 Oxirane (CAS 75-21-8) Listed: July 1, 1987

California Proposition 65 - CRT: Listed date/Developmental toxin

Oxirane (CAS 75-21-8) Listed: August 7, 2009

California Proposition 65 - CRT: Listed date/Female reproductive toxin

Oxirane (CAS 75-21-8) Listed: February 27, 1987

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Oxirane (CAS 75-21-8) Listed: August 7, 2009

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

4-Nonylphenol, branched, ethoxylated (CAS 127087-87-0)

Polydimethylsiloxane (CAS 556-67-2)

16. Other information, including date of preparation or last revision

07-21-2021 Issue date **Revision date** 07-21-2021

Version # 02

Material name: Kovar Flair NS SDS US **NFPA** ratings

Health: 2 Flammability: 3 Instability: 0

NFPA ratings



Disclaimer

This information was developed from information on the constituent materials. No warranty is expressed or implied regarding the completeness or continuing accuracy of the information contained herein, and the manufacturer disclaims all liability for reliance thereon. The user should satisfy himself that he has all current data relevant to his particular use.

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