1. Identification of the product and of the company

1.1 Identification of the product : NURI PAIR SEAL

1.2 Company/undertaking identification : NURI CHEM Co., Ltd
80 Bongjae-ri, Dunpo-myeon, Asan-si,
Chungcheongnam-do(Province)
Tel) +82-41) 532-2942
FAX) +82-41) 532-2947

2. Composition / Information on ingredients

Substances	CAS No,	content %(w/w)	Risk
Limestone($CaCO_3$)	**1317-65-3**	**20-50**	**Harmlessness**
Dimothyl siloxane, hydroxytorminated	**70131-67-8**	**20~40**	**Harmlessness**
Silica, amorphous	**7361-86-9**	**<20**	**If inhalation, harmful**
methyl tri(ethylmethylketoxime) silane	**22984-54-9**	**<10**	**may cause sensitization by skin contact Harmful in contact with skin Risk of serious damage to eyes**
Sales Secrets		**<10**	**Harmlessness**

3.Hazardous Identification

3.1 Emergence hazardous information

- Harmful in contact with skin
- May cause sensitization by skin contact
- Irritating to respiratory system
- Risk of serious damage to eyes
- May cause sensitization by inhalation

3.2 Signs and Symptoms of Overexposure:
- May cause severe irreversible health effects.

4. First Aid Measures

4. First Aid Measures

4.1 Eyes : Wash eyes immediately with plenty of water for at least 15min.

4.2 Skin: Remove contaminated clothing, wash skin with plenty of water and soap.

4.3 Inhalation: Remove to fresh air immediately. If symptoms persist, call a physician.

4.4 Ingestion: Call a physician.

4.5 Comments: Treat according to person's condition and specifics of exposure.

4.6 Note to Physicians: Treat symptomatically. For further information, the medical practitioner Should contact Lucky Silicone Industry CO., Ltd.

5.Flash Fight Measures

5.1 Flash Point: Not applicable.
5.2 Auto ignition Temperature: Not determined.
5.3 Lower/Upper Flammability Limit : Not determined.
5.4 Fire Service Law Classification: Not applicable.
5.5 Extinguishing Media: On large fires use dry chemical, foam or water spray. On small fire use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.
5.6 Special Fire Fighting Procedures: and Equipment: On large fire use dry chemical, foam or water spray. On small fires use carbon dioxide(CO_2), dry chemical or water spray. Water can be used to cool fire-exposed containers.
5.7 Hazardous Combustion Product: Metal oxides. Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Nitrogen oxides. Quartz. Formaldehyde.
5.8 Unsuitable Extinguishing: None established.

6.Accidental Release Measures

6.1 Personal Precautions: Avoid skin and eye contact. Avoid breathing vapor. Keep container closed. Do not take internally**.**
6.2 Environmental Precautions: Do not allow large quantities to enter drains or surface waters.
6.3 Methods for Cleaning up: Observe all personal protective equipment recommendation described in this MSDS. If diked material can be pumped. Store recovered material in appropriate container. Wipe up or scrape up and contain for salvage or disposal. Clean area as appropriate since spilled material, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Laws and regulations may apply to releases and disposal of this material, as wall as those Materials and items employed in the clean up of releases.

You will need to determine which laws and regulations are applicable

7. Handling and Store

7.1 Handling Precautions: Use with adequate ventilation. Product evolves methyl ethyl ketoxime(MEKO) when exposed to water or humid air.
Provide ventilation during use to control MEKO within exposure guidelines or use respiratory protection. Product
Evolves flammable methyl alcohol when exposed to water or humid air. Provide ventilation during use to control methyl
Alcohol exposures within exposure guidelines or use air-supplied or self-contained breathing

7.2 Storage Conditions: Use reasonable care and store away from oxidizing materials.

Keep container closed and store away from water or moisture.

8 Preventive Measures / Personal Protective Equipment

8.1 Engineering Controls

Local Ventilation : Recommended.

General Ventilation: Recommended.

8.2 Personal Protective Equipment for Routine Handing

Respiratory protection Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data show exposures are within recommended exposure guidelines.
Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: Organic Vapor Type

Eye Protection: Use Proper protection – safety glasses as a minimum.

Hand protection: Butyl Rubber. Natural Rubber. Neoprene Rubber(R) .
Nitrile Rubber.

Skin protection : Wash at mealtime and end of shift. If skin contact occurs,
Change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water.
Chemical protective gloves are recommended.

Hygiene Measures: Remove contaminated clothing immediately.
Exercise good industrial hygiene practice. Wash after handing,
Especially before eating, drinking or smoking.

8.3 Personal Protection Equipment for Spills:

Respiratory protections: Use self-contained breathing apparatus(SCBA) or other Supplied-air respirator.

Eye protection: Use full face respirator.

Skin protection: Wash at mealtime and end of shift. If skin contact occurs,
Change contaminated clothing as soon as possible and thoroughly flush affected areas with cool water. Chemical protective gloves are recommended.

Precautionary Measures: Avoid skin and eyes contact. Avoid breathing vapor.
Keep container closed. Don't take internally.
Use reasonable care.

Comments: Product evolves MEKO when exposed to water or humid air.
Provide ventilation during use to control MEKO with exposure guidelines or use respiratory protection.

Product evolves flammable methyl alcohol when exposed to water humid air. Provide ventilation during use to control methyl alcohol exposures within exposure guidelines or use air air-supplied or self-contained breathing apparatus.

8.4 Industrial Hygiene Standards:

Methyl tri(ethylmethylketoxime)silane	22984-54-9	See ethyl methyl ketoxime comments.
Methylethylketoxime	96-29-7	Vendor guide: TWA 3 ppm, STEL 10 ppm. AIHA WEEL: TWA 10ppm.
Di(ethylmethylketoxime)	83817-72-5	See methyl alcohol and ethyl methyl
Methoxymethyl silane		See methyl alcohol and ethyl methyl ketoxime comments.
Aminorthylaminopropyl trimethoxysilane	1760-24-3	See methyl alcohol comment.

Methyl alcohol forms on contact with water or humid air. Provide adequate ventilation to control exposures within Guidelines of OSHA PEL " TWA 200 ppm and ACGIH TLV-skin : TWA 200 ppm, STEL 250 ppm, Ethyl methyl ketoxime is formed upon contact with water or humid air. Provide adequate ventilation to control exposure within the following exposure guidelines : Vendor guide TWA : 3ppm, STEL : 10ppm; AIHA WEEL TWA :10ppm.
Note: These precautions are for room temperature handing. Use at elevated temperature or aerosol / spray application
May require added precautions.

9.Physical and Chemical Properties

9.1	**Physical Form**	: Paste
9.2	**Colour**	: Gray, Light gray
9.3	**Odour**	: some odor
9.4	**pH**	: Not determined.
9.5	**Solubility in water**	: Not determined.
9.6	**Boiling Point**	: Not determined..
9.7	**Melting Point**	: Not determined..
9.8	**Explosive properties**	: Not determined.
9.9	**Oxidizing properties**	Not determined.
9.10	**Vapor Pressure (at 25℃)**	:Not determined.
9.11	**Specific Gravity**	: 1.36
9.12	**Octanol/water partition coefficient**	: Not determined.
9.13	**Vapor Density(air=1)**	: Not determined.
9.14	**Viscosity(at 25℃)**	: 240,000±30,000cps
9.15	**Molecular Weight**	: Not determined

** The above information is not intended for use in preparing product specifications. Contact Nurichem CO., Ltd. before writing specifications.

** The above information is not intended for use in preparing product specifications

10.Stability and Reactivity

10.1 Stability: Stable
10.2 Reactivity
Conditions to avoid: None

Materials to avoid:	Can react with strong oxidizing agents Water, moisture or humid air can cause hazardous vapor to form.
Hazardous Decomposition Products:	Metal oxides. Carbon oxides and traces of incompletely burned carbon compounds. Silicone dioxide. Nitrogen oxide. Quartz. Formaldehyde.
Hazardous Polymerization:	Hazardous polymerization**.**

11.Toxicological Information

11.1 Inhalation : Injuries to heath can't be excluded after longer or repeated exposure. Sensibilisation by way of inhalation possible. Cross-reactions with Other isocyanate compounds possible.

11.2 Skin contact: The product is irritant to skin and mucous membranes.

12 Disposal Considerations

12.1 Disposal: Collect for disposal. Dispose of this product as other flammable material.

12.2 Classification : Dispose according to appropriate regulations.

13. Ecological Information

-Avoid discharge to natural water, sewers, and biological waste water treatment plants

14. Transport Information

14.1 Sea transport(IMDG)

Not subject to IMDG code.

14.2 Transportation Precautions:

Transport in accordance with the relevant regulations. Refer to section 7.2 for further information on transportation requirements. Refer to section 6 for the safety measures to be taken in the event of accidental release.

14.3 Other International Transportation Regulations

Air Transport(IATA-DGR)

Not subject to IATA regulations.

15. Regulatory Information

15.1 Classification and labeling in accordance with Industrial Safety and Health Law

Classification: Harmful.
Irritant.
Sensitizing.

S-phrases: Avoid contact with eyes.
Wear suitable protective clothing and gloves.
Use only in well-ventilated areas.

15.2 Toxic Chemical Control Act and Other Chemicals Management Regulations

Chemicals controlled in accordance with Toxic Chemicals Control Law.

Toxic Chemicals: No subject chemicals
Observational Chemical: No subject chemicals
Prohibited Chemicals: No subject chemicals
Restricted Toxic Chemical: No subject chemicals
KOREA TRI Chemical: No subject chemicals

15.3 Other International Regulations

Chemical Inventories:

KECL: All ingredients listed, exempt or notified.
EINECS: No subject chemicals
TSCA: No subject chemicals
MITI: No subject chemicals
DSL: No subject chemicals
AICS: No subject chemicals
IECSC: No subject chemicals
PICCS: No subject chemicals

16. Other Information

Information Source : NURICHEM CO., Ltd R&D dept.
Prepared by : NURICHEM CO., Ltd R&D dept.

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is hereby made. The recommended industrial hygiene and handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.