

SDS No.160701FC

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: Volatile corrosion control sheet Stealth FK

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Corrosion control sheet

Uses advised against: No information

1.3. Details of the supplier of the safety data sheet

Name of supplier (importer):

Department in Charge

Address

Telephone number

Fax number

e-mail address

Name of manufacturer in Japan: Iwatsu Manufacturing Co.,Ltd.

Department in Charge Engineering Dept.

Address 3309 Shimokoyama, Shimotsuke-shi, Tochigi 329-0502 Japan

Telephone number +81-285-53-1233

Fax number +81-285-53-5713

e-mail address dk.deli@iwatsu.co.jp

1.4. Emergency telephone number

+81-285-53-1233

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with EC No 1272/2008:

Acute Tox. 4: H302

Acute Tox. 4: H312

Acute Tox. 4: H332

Skin Irrit. 2: H315

Eye Dam. 1: H318

Skin Sens. 1: H317

Muta. 2: H341

Repr. 2: H361f

Lact. : H362

STOT SE 2: H371

STOT RE 2: H373

Classification in accordance with 1999/45/EC:

Xn; R48/20/21/22, R68/20/21/22, R20/21/22. Repr. Cat. 3;R62,63, Muta. Cat. 3;R68.

Xi;R36/38. R43. R64.

2.2. Label elements

In accordance with EC No 1272/2008:

Pictogram



Signal word

Danger

Hazard Statements

H302: Harmful swallowed.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H332: Harmful if inhaled.
H341: Suspected of causing genetic defects.
H361f: Suspected of damaging fertility.
H362: May cause harm to breast-fed children.
H371: May cause damage to organs Blood , Liver , Nervous system.
H373: May cause damage to organs Gastro-intestinal tract , Kidneys , Liver , Respiratory system, Testis, Nervous system through prolonged or repeated exposure.

Precautionary Statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P311: IF exposed or concerned: Call a POISON CENTER/doctor.

2.3. Other hazards

The product does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Product Name:

Volatile corrosion control sheet

Information on ingredients*:

Chemical name	CAS No.	EC No.	Index No.	REACH Registration No.**	Concentration (wt %)	Classification***
Monoethanolamine	141-43-5	205-48 3-3	603-030-0 0-8	-	1-10	CLP Acute Tox. 3: H311 Skin Corr.1A:H314 Eye Dam.1:H318 Skin Sens.1:H317 STOT SE.1:H370 STOT RE.1:H372 DSD T;R24,R48/23/24/25,R39 /23/24/25 C;R35 Xi;R41 N;R51 R43
Sodium nitrite	7632-00- 0	231-55 5-9	007-010-0 0-4	-	1-10	CLP Ox. Sol. 3: H272 Acute Tox. 3: H301 Eye Irrit. 2: H319 Muta. 2: H341 Repr. 2: H361 Lact. : H362 STOT SE 1: H370 STOT RE 2: H373 Aquatic Acute 1: H400 Aquatic Chronic 1: H410 DSD T;R25,R39/23/25 Xn;R48/20/22 Repr. Cat. 3;R63 Muta Cat. 3; R68 Xi; R36 O; R8 N; R50/53 R64
Others	-	-	-	-	1-10	-
Cellulose	9004-34- 6	232-67 4-9	-	-	80-90	CLP Not classified. DSD Not classified.

* This composition corresponds to volatile corrosion inhibitor. 80-90% of this product consists of cellulose. As a result of a diffusion test of the product, ethylene glycol, nitrate ion and ammonium ion were detected.

** Registration numbers of ingredients which shall be in compliance with Regulation (EC) No 1907/2006 will be filled in later.

*** Full texts of relevant hazard statements and risk phrases can be seen in SECTION 16 of this SDS.

SECTION 4: First aid measures

4.1. Description of first aid measures

IF INHALED:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case certain symptoms such as headache and/or nausea are observed, immediately get medical treatment.
IF ON SKIN:	Take off immediately all contaminated clothing. Wash with plenty of water and soap. If skin irritation or rash occurs, get medical advice/ attention.
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.
IF INGESTED:	Rinse mouth. Immediately get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Harmful swallowed.
Harmful in contact with skin.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Harmful if inhaled.
Suspected of causing genetic defects.
Suspected of damaging fertility.
May cause harm to breast-fed children.
May cause damage to organs Blood , Liver , Nervous system.
May cause damage to organs Gastro-intestinal tract , Kidneys , Liver , Respiratory system, Testis, Nervous system through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

No information

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Use water mist, dry chemical powder or fire foam

Unsuitable extinguishing media

Carbon dioxide is not suitable for paper-like materials.

5.2. Special hazards arising from the substance or mixture

Toxic and irritating vapours and/or gases may generate by combustion.

5.3. Advice for firefighters

Take action from windward.

Non-responsible personnel should escape from the fire site.

In case of fire occurs in surroundings, move containers to a safe area if possible.

Fire fighters should wear appropriate personal protective equipment, e.g. face protection and safety

apron. Non-responsible personnel should escape from the fire site.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Wear suitable protective equipment (see SECTION 8) e.g., safety gloves, protective mask and/or protective glasses to prevent exposure.

For emergency responders:

Keep out except responsible personnel.

Wear suitable protective equipment described in “SECTION 8: Exposure Controls/ Personal Protection”

6.2. Environmental precautions

Avoid release into the environment because product may cause local effects.

6.3. Methods and material for containment and cleaning up

Sweep up scattered materials or vacuum them using a vacuum cleaner so as not to cause dust then collect them into an empty container.

Do not eat or drink near handling and storage locations.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent to flowing into drains, sewers, basements or closed areas.

6.4. Reference to other sections

Refer to “SECTION 8: Exposure controls/personal protection” and “SECTION 13: Disposal considerations” as appropriate.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures:

Install appropriate equipment and wear suitable protective apparatus described in "SECTION 8: Exposure Controls/ Personal Protection".

Avoid high-temperature environment.

Wash hands thoroughly after handling.

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

Advice on general occupational hygiene:

Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:

In the storage area, install adequate light and ventilation systems to handle hazardous materials.

Store in fear-free place of rain or water wet.

Incompatible materials:

Oxidizing agents

Conditions for safe storage:

Avoid direct sunlight, heat, fire and oxidizing agents.

Packing material:

Package in materials that can prevent rain or water wet.

7.3. Specific end use(s)

Corrosion control sheet

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Acceptable concentration (exposure limit, biological exposure index)

EU IOELV	Not applicable
ACGIH TLV-TWA (2014)	10 mg/m ³ (Cellulose)
	3 ppm (Ethanolamine)
ACGIH TLV-STEL (2014)	6 ppm (Ethanolamine)

8.2. Exposure controls

Appropriate engineering controls:

In a work place where dusts generate, ensure to use local ventilation.

Personal protective equipment:

Respiratory protection	In case of dust generation, wear appropriate protective mask or air aspirator as required.
Hand protection	If hand contact is possible, wear protective gloves.
Eye protection	Wear safety glasses or goggles if in eyes.
Skin and body protection	Wear protective clothing and apron if necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance (physical state, form and colour)	Cylinder shape paper roll or flat sheet
Odour	No information
Odour threshold	No information
pH	No information
Melting point/freezing point	No information
Initial boiling point and boiling range	No information
Flash point	No information
Evaporation rate	No information
Flammability (solid, gas)	No information

Upper/lower flammability or explosive limits	No information
Vapour pressure	No information
Vapour density	No information
Relative density	No information
Solubility (ies)	No information
Partition coefficient: <i>n</i> -octanol/water	No information
Auto-ignition temperature	291 °C
Decomposition temperature	No information
Viscosity	No information
Explosive properties	No information
Oxidising properties	No information

9.2. Other information

No information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal handling condition.

10.2. Chemical stability

Stable under normal handling condition.

10.3. Possibility of hazardous reactions

No hazardous reaction expected under normal handling.

10.4. Conditions to avoid

Avoid direct sunlight, and storage of the package of this paper in cool and well-ventilated place. Keep container tightly closed.

10.5. Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

In case of fire, toxic decomposition products (carbon monoxide, carbon dioxide, nitrogen oxide) may be generated.

SECTION 11: Toxicological information

11.1. Information on product:

No information

11.2. Information on ingredients:

Monoethanolamine

Acute toxicity (oral): Rat LD₅₀ = 3,320 mg/kg

Acute toxicity (dermal):	Rabbit LD ₅₀ = 1,000 mg/kg
Acute toxicity (inhalation: dust/mist):	Classified as "Acute Tox. 4: H332" according to EC No 1272/2008.
Skin corrosion/irritation:	Based on the description in the report on animal skin irritation tests. "Corrosive" and "irritating, necrosis," the substance is thus considered "corrosive."
Serious eye damage/irritation:	Based on the description in the report on rabbit eye irritation tests. "Extremely irritating, causing corneal opacity and iris/conjunctival swelling," the substance is considered "extremely irritating to the eye and corrosive to the skin and eye." Classified as "Skin Corr. 1B: H314" according to EC No 1272/2008.
Skin sensitization:	There is a human case of occupational exposure on some 100 people, showing positive results in the study employing the non-diluted substance.
STOT-single exposure:	In human, "headache, nausea, hyposthenia, dizziness, numbness in fingertips, pectoralgia" and "enlargement of the liver, an increase in serum ALT levels and alkaline phosphatase activity, chronic hepatitis (in six month's time)" were reported. In the animal studies, "ataxia, convulsions," and "hepatocellular fatty degeneration" were reported. Classified as "STOT SE 3: H335" according to EC No 1272/2008.
STOT-repeated exposure:	In the animal studies, "a decrease in locomotor activity, lethargy, skin irritation, irregular respiration, decease (83%) - with spermatogenesis inhibition and adverse effects on alimentary canal (degeneration of the small intestine wall, intestinal blockage due to dehydrated excrement) were reported on the deceased subjects. Those in rodents include: hepatocellular fatty degeneration, an increase in lymphoid tissues in the pulmonary interstitium.
Sodium nitrite	
Acute toxicity (oral):	Rat LD ₅₀ = 77 mg/kg
Acute toxicity (inhalation: dust/mist):	Rat LC ₀ = 0.0951 mg/L
Serious eye damage/irritation:	Mild and Moderate in the eye stimulativeness examination in the rabbit (correspond to GLP).
Germ cell mutagenicity:	As somatic cells <i>in vivo</i> mutagenicity test in multiple chromosomal aberration test using bone marrow by oral administration to rats and mice, positive results have been reported.
Reproductive toxicity:	In oral administration developmental toxicity study during organogenesis period of pregnant mice, a significant decrease

in implantation rate and average litter size and a significant increase in mortality children and early death were observed at doses that dams showed a reduction in body weight gain.

Furthermore iron content in the milk of administration mother animal is lower than control animals which resulted in side effects (anemia) to children.

Specific target organ toxicity (single exposure):

There are reports that it affects the cardio-vascular system and blood (methemoglobinemia, etc.).

Specific target organ toxicity (repeated exposure):

In the repeat-administration studies to a rat, there were 2 reports of methemoglobinemia.

SECTION 12: Ecological information

12.1. Toxicity:

Information on product: No information

Information on ingredients:

Monoethanolamine

Aquatic acute toxicity:

Algae (*Pseudokirchneriella subcapitata*)72h ErC₅₀=2.5mg/L

Aquatic chronic toxicity:

No information

Sodium nitrite

Aquatic acute toxicity:

Fish (Rainbow trout) 96h LC₅₀ = 0.54 mg/L

Aquatic chronic toxicity:

Crustaceans (shrimp) NOEC > 1 mg/L

Algae (*Desmodesmus subspicatus*) NOEC > 1 mg/L

12.2. Persistence and degradability:

Information on product: No information

Information on ingredients:

Monoethanolamine

Biodegradability by BOD = 83%

12.3. Bioaccumulative potential:

Information on product: No information

Information on ingredients: No information

12.4. Mobility in soil:

Information on product: No information

Information on ingredients: No information

12.5. Results of PBT and vPvB assessment:

The product does not meet the PBT and vPvB criteria.

12.6. Other adverse effects:

No information

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste in accordance with applicable local, regional and international regulations and standards.

When disposing, consult to a certificated waste trader or local offices if they deal with the waste.

Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.

Contents should be removed completely when dispose of empty containers.

SECTION 14: Transport information

14.1. UN number Not applicable

14.2. UN proper shipping name Not applicable

14.3. Transport hazard class(es) Not applicable

14.4. Packing group Not applicable

14.5. Environmental hazards Not applicable

14.6. Special precautions for user

When transporting, avoid direct sunlight. Confirm no leakage to containers. When loading, prevent containers from falling, dropping off or damaging. Take preventive measures of collapse.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/ legislation specific for the substance or mixture

The product and its ingredients are not regulated by specific provisions related to protection of human health or the environment at EU level, e.g. not considered as SVHCs or POPs.

15.2. Chemical safety assessment

Not conducted

Section 16: Other information

Update history:

Date of issue: 24th Dec, 2014

Revision Date: 1th July, 2016

References:

Information of Iwatsu Manufacturing Co.,Ltd

NITE GHS classification results (2014).

ACGIH, American Conference of Governmental Industrial Hygienists (2014) TLVs and BEIs.

Relevant risk phrases of which do not appear elsewhere in this SDS

- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R24 Toxic in contact with skin.
- R25 Toxic if swallowed.
- R35 Causes severe burns.
- R36 Irritating to eyes.
- R36/38 Irritating to eyes and skin.
- R37 Irritating to respiratory system.
- R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R39/23/25 Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R48/23/24/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51 Toxic to aquatic organisms.
- R62 Possible risk of impaired fertility.
- R63 Possible risk of harm to the unborn child.
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- H272 May intensify fire; oxidiser.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H361fd Suspected of damaging fertility or the unborn child if swallowed.
- H362 May cause harm to breast-fed children.
- H370 Causes damage to organs <<Organs>>.
- H371 May cause damage to organs <<Organs>>.
- H372 Causes damage to organs <<Organs>> through prolonged or repeated exposure.
- H373 May cause damage to organs <<Organs>> through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

Abbreviations

PBT: Persistent, Bioaccumulative and Toxic substance

POPs: Persistent Organic Pollutants
STOT: Specific Target Organ Toxicity
SVHC: Substances of Very High Concern
vPvB: Very Persistent and Very Bioaccumulative

[Disclaimer]

This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.